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The HOME EDUCATOR

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MINNETTA SAMMIS
LEONARD

MADISON, WISCONSIN

Associate Editor

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THE HOME EDUCATOR

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Introduction

THE present trend of events encourages the belief that the little child is at last coming into his birthright—his unquestioned inheritance of intelligent care and education. This is manifested in numberless sporadic but intelligent efforts to reduce useless waste in baby life—first, to cut down the shocking mortality in early infancy; and second, through continuous oversight, to keep morbidity at a minimum.

The last decade has seen marvelous progress in this preventive work with infants and young children, and the future promises still greater progress in child welfare through coöperation of the school, the home and the municipality.

There is much yet to be done, and all that intelligence and insight can offer must be bestowed increasingly on these early years, when every effort pays high interest. The young child, which is and ever has been the nation's greatest asset, is still all too often left to chance environment, neglect and unscientific care. Our great nation is still willing to spend its millions in safeguarding our crops and in improving the quality of our hogs and cattle, while investing a few paltry thousands in educational experts to investigate conditions which might insure improvement in our human stock. Our national pride should be shocked when we face the fact that we still rank agriculture higher in our scale of values than an investment in education.

Until quite recently the curricula of high schools and colleges gave no evidence of the fact that those who planned them realized that they were training in these institutions those who are soon to assume the duties and responsibilities of parenthood. Even in the limited number of colleges which have courses in household economics, the curricula in these departments consider more the externals of home-making, centering little attention on the setting of family life as the core of importance. In other words, slight attention is paid to the *child*, or to *family relations*, while untold time is given to food, clothing, marketing, household budgets and household administration.

Preparation for the teaching of young children in nursery schools, kindergartens and grades is improving by leaps and bounds. In the high school and college of the past, teachers were highly paid for the simple reason that they and the public considered it necessary for those teaching in these fields to put money, time and effort into college education. For those teaching in the lower field it was not supposed necessary. As a consequence, the elementary field drew into its service teachers of lower intelligence, personality and culture, poorly trained, poorly paid and overworked; they were put into schools poorly built and poorly equipped. When we realize that the teachers in this field are the ones who

are laying the foundations of character, at a period when the child is more *impressionable* than he will ever be again, we can but wonder that we are so slow of heart and so blind to the importance of this neglected end of education.

We are fortunately beginning now to set the same standards, and eventually we shall be able to demand the same high-grade training and salaries for teachers of young children as for those in our high schools. Some cities and states, especially in the West, have taken the position that a teacher is to be paid not for the level of development which she teaches, but for the preparation she has put into her profession, and for her professional ability, whether this is to be bestowed upon young children, high school or college students. And why not? If education is growth and development, is not growth and development at four years, six years and ten years as important as growth at fourteen, sixteen or twenty years? Many there are who would go still further, and say that to provide all that ministers to growth in early years is even *more* important than all arrangements for later life. Not only is this true because of the greater impressionability of early life, but because the young child is necessarily more helpless and is more of a victim of his environment than in any later period, when he can do something to protect himself and educate himself.

When we study the problem of preparation, transferring it from the field of the teacher and the school to the parent and the home, the situation is even more discouraging. Here there is practically no preparation required for prospective parents—no license, no examination, no scholastic degree. Any man or woman can enter upon this most serious of all responsibilities of life with no questions asked, and no diplomas required.

Important as our schools are, and grateful as we are that they are now being safeguarded so that no one can teach without preparation—without a license, a diploma or a degree—the influence of the mother, the father and family—the home—strikes far deeper in making or marring our citizens of the future. In one of our greatest penitentiaries it is claimed that statistics prove that chauffeurs as a group rank low in intelligence and high in criminality. Nevertheless, we do make some poor efforts at least in requiring a test of their ability to run automobiles before granting licenses that trust the life of the public to their care. But any fool, any criminal, can assume the responsibilities of parenthood, and unless overt physical cruelty can be proved, the child may be left to ignorance, neglect and crime.

Most parents, if they awaken to the serious problem of their calling, do so after they have assumed the serious responsibilities of parenthood. Unfortunately, untold numbers pass through the whole experience from start to finish with-

out any realization of the heavy responsibility that rests on them. On the other hand, the more thoughtful realize at the last moment, as they face the new life coming to them, what they are approaching, and we see them rushing hither and yon, calling on doctors, nurses, teachers, schools and what not, to come to their rescue with the knowledge which at the last moment they are seeking. And who, may we ask, listens or heeds their call for help? The physicians do the best they can at the last moment, and some schools call the parents together and offer courses or discussions bearing on home problems.

The alumnae of our women's colleges are urging those colleges to do better by the mothers of the future than they have done by those of the past and present. Unfortunately, most college faculties ignore this call and continue to offer curricula for the future far removed from so mundane a sphere as that of the parent and the home.

Some of the great educators saw this need centuries ago. In the sixteenth century Comenius wrote his little volume for mothers, called "The School of Infancy." If one can take rather heroic doses of old-fashioned piety and irrelevant information, there is still much that can be gained from its study.

Pestalozzi wrote his book for mothers, and later Froebel not only wrote for them but attempted to train them. Failing in his appeal to the mothers, and realizing that when once swamped in the problems of motherhood and home-making a mother can give little time to training for her profession, he decided to train young women in the care of children at the pre-school age, and he created kindergartens as a means for educating the child and the teacher. In selecting this name Froebel attempted to emphasize the fact that the school was to be compared to the garden, the teacher or mother to a gardener, the child to the growing flower. As an integral part of this new educational institution he organized work with parents, especially mothers, and was the first pioneer in this untried field. From that day to this, work with mothers has been considered an integral part of work with children in most kindergartens, and while often poorly done, it at least has served to pave the way for more scientific work being done with parents in many centers to-day.

There have been constant calls for help—more and more help—in the home, and appeals for books which parents may study, as well as classes for them to attend. The supply of books taking up the mother's own problem in the field in which she is the presiding genius have been few. Physicians, nurses and dietitians have answered this call better than have the educators. When the body loses weight it is more self-evident than the wilted soul or the stunted mind, but the parents who discover the former first come to see the moral and social problems, as well, and continue the demand for help and preparation.

Because of these appeals this little volume has been planned. When the publishers of this book asked for a volume for parents on their own problems, it seemed best to call to my assistance a *trained mother*, one who had proved her ability in both the school and home. In going over the lists of those who were conspicuous examples of success in both fields, the name of Mrs. Minnetta Sammis Leonard was not to be disregarded. In the management of her own household, as wife and mother, she had with rare skill studied and applied the knowledge and ability she displayed at a leader in the educational world to the new problem of child-care and home-making. The simplicity and modesty of her claims, the unpretentiousness with which she has worked out her educational problems in a new field, make her a safe guide to help other wives, mothers and home-makers in the greatest of all arts, the art of child-rearing and home-making. The art of home-making is severely taxed at the present moment because of the rapidly-changing conditions and social attractions which make it difficult to keep the family life intact, preserving the sacred fire of the hearthstone while marching face forward with a progress which apparently threatens rather than contributes to the solution of the home problem.

It has been my privilege and pleasure to work with Mrs. Leonard in planning this book, coöperating with her in selecting the experts in each field, and in going over manuscripts as they were submitted. But the chief credit for the volume as it stands is due to her unfailing effort and her insight into the problem of the mother, the family and the home.

PATTY S. HILL.

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Foundation Stones



Our Child Garden

SOIL AND ATMOSPHERE

FANNIE E. HUGHEY

ONE day I took a most delightful ride through Golden Gate Park in San Francisco. Our guide explained that none of the beautiful trees and shrubs we were admiring was a native of the park. Each individual had been brought from another place, and by care and cultivation had been made to develop in its new home as if it were in its native soil.

The Scotch heather was blooming as happily as if on the bonny banks and braes of its homeland; and any lonesome lad or lassie strolling by might have gained a wee bit o' comfort from the sight. There were hundreds of varieties of plants, each giving freely of its beauty and fragrance to gladden the hearts and cheer the thoughts of passers-by.

Soil. More than that, the guide said the *soil itself* had been brought to give the proper feeding to the plants. Only the original *atmosphere* was there. Plants, soil and gardeners had been imported, and all worked together for the result so pleasing to the eye.

As we rode on and on, seeing one beautiful view after another, my mind reverted to my Child Garden, and I began to compare. These plants, I thought, do not look artificial. They do not look transplanted. They have no air of being foreign. They are happy and are *growing naturally*, expressing themselves with unconscious freedom.

But—yes, that little group of three letters, b-u-t, marks the difference between a weed and a flower. The beauty, the fragrance, the worth of each plant must be secured by refining, intensifying and increasing native qualities through *cultivation*. No one will say that a weed, however pretty, has the intrinsic value of a choice variety of cultivated flowers. Weeds are too *common*. They have not been developed into beauty. They have been allowed to *run wild*.

Soil can be improved by the use of fertilizers, or by bringing better earth to

mix with that which is less fitted to nourish the plants. This requires familiar acquaintance with varieties of soil and varieties of organic life, and is part of the necessary equipment for a gardener.

For a successful child-garden, given the human plants and the wise gardeners, we must next prepare the soil both to stimulate the plants to exercise, to grow, and also to provide an abundance of well-balanced food for the development of all parts of the organism.

Environment. The silent influence of books, pictures and objects of art, harmonious blending of color in rugs, upholstering, walls and hangings, good music, choice language, plenty of sunshine and pure air—all of these stimulate *love for the beautiful*, which Franz Liszt says is “so nearly allied to the *good*”; they establish harmony in the child’s consciousness, which tends to refine and strengthen character and lends charm to personality.

Harmony in the individual organism prepares for adjustment of discordant elements in the group. Is it not reasonable to expect these silent influences in the early environment of our babies to become so powerful in the building of character universally as to *prevent* wars, sickness and evils of all types, which emanate from unharmonious elements in individual life and create discord in the group? *Think on these things.*

If such miracles of development in plant and animal life can be accomplished through environment and culture, why should there be any doubt of the wonderful possibilities of human development along spiritual and intellectual lines? And what can we say in defense of so-called educators who split hairs over biology, physiology and the development of fine physiques, but who scoff at the suggestion of giving to the minds of our children in early life such nourishment as shall develop the soul as well as the body?

These are *serious* matters for consideration tending towards practical efforts at readjustment of the attitude of parents and voters.

There is no question before the public of such vital import as the development of a *better race*, particularly along the line of *refinement of the type*.

In the face of another threatening world war, we cannot be too zealous, fathers and mothers of America, for the purging, purifying, re-creating of a system of education which shall subdue, instead of inflame, the passions, which shall guide the will and *control* the thoughts and actions of men and women.

The soil for the early life which shall strengthen and refine the character and beautify personality must be skillfully prepared by those who have in charge the *home* gardens. The gardener can do *what he will, if he begins cultivation in time.*

Let us not forget that environment, or the soil in which the baby germinates

and grows, may be *changed* to suit the needs of the young life. Every nurse and mother should *study* to "know how" to prepare and preserve the right environment, either by enrichment of native soil or by transplanting. Every father should supply the necessary means and the necessary sympathy, interest and help which the mother gardener requires to accomplish her glorious task of *child-culture* in every phase—physical, mental, spiritual, individual, and social. No mother can do the work of father, too, in the house; her own duty requires all of her energies.

Change the Soil. Some plants will not bloom if the soil is too rich. They *live too fast* and develop bark and leaves, but neither flowers nor fruit. Some children are spoiled by luxury. In both gardens the plants should be placed in soil which will not stimulate too much. There should be less variety in environment, less *giving* to the child, more effort required to *seek* to obtain, on the part of the growing organism.

Don'ts for Child Gardeners. Don't have *too many* stories. *One* well told, enjoyed and digested is worth more than ten which are confused together and forgotten.

Don't have too many lessons, or have them too long. The mind becomes overtired. Always *stop* before the child is ready to do so; then he will be eager to return to his mental repast next time.

Don't play when the mind needs the stimulus of work, lest play become too relaxing, too enervating, and the mind becomes too weakened to be able to enjoy mental work.

Children have a stronger instinct for work than for play; and they will *work hard* at their play, if left alone, and, at the same time, will get more real, jolly *fun* out of it, than when it is made too easy.

Don't make up all the plays or direct all the work in the nursery. Coöperate, encourage, provide a little of the right sort of materials; be a comrade, but not a dictator. Don't give, even of love, to the point of surfeiting.

Don't say "Don't"! If you do not want your child to do what he is doing, *attract* him away and say "*do*" this for mother, dear!

Don't study your own desires. Study your *baby's viewpoint*.

Don't think you must let him have his own way *all the time*, or to the detriment of others' rights or privileges. Even baby must learn to "give up," to "obey law," and to adjust his life to others within his group.

Don't reprove or punish a child unless you are *sure* he is *willfully* committing a wrong. *Get his viewpoint*. A little child is not *immoral*. He is *unmoral*. What seems wrong to your conventional ideas may be *absolutely right* to his natural conception. A CHILD IS NEAR TO NATURE'S HEART,

AND NATURE'S HEART IS GOD'S. For example, the story is told of a child swearing. The child was perfectly *right* from *his* viewpoint. He heard something that was new, and his instinct of imitation, his instinct of reproduction, almost *forced* him to copy. It was no more wrong for the bright little chap to speak oaths than it was to say the German words that interested him.

Don't mar or destroy baby's childish treasures, even if they are of no value in your eyes.

Love and Courtesy. The two elements of atmosphere which must exist for the perfection of human life are *love* and *courtesy*.

Love is the fulfilling of the law and the motive power of the gospel of truth and life.

"Love works no ill to his neighbor."

Love begets love; therefore love *protects* life. Love expresses itself in kindly deeds which win kindly deeds in return. Therefore love's blossoms are kindness, gentleness, thoughtfulness, self-control and courtesy. Love grows by giving; love perfects by harmonizing; love develops joy and contentment. Therefore the exercise of love means growth and beauty.

Courtesy. Courtesy is one of the greatest assets of success in every phase of life. It is one of love's choicest blossoms.

I visited a large university not long ago. Not knowing the way, I asked a pleasant-faced man what direction I should take. He kindly showed me, and I hurried on. I did not consciously miss anything, and I secured the information I sought. Coming off the campus by another path, I again lost my way and to make sure of the right avenue, I spoke to a young student who was swinging along rapidly with his books under his arm. Without a thought he instinctively took off his cap and in a cultured tone of voice directed me. Both gave kindly help in need. I was grateful to each; but the young gentleman added grace and charm to a matter-of-fact statement, which was as inspiring to my feelings as was his direction a guide to my progress.

Both were good, but the one was charming. I did not need to be told the character of the home either represented. The *unconscious* expression of unpolished kindness in the one and of instinctive courtesy in the other showed at first sight the home culture. Native value is increased by culture.

Begin to study atmosphere and environment, parents, *before* your baby arrives in your family. You should *know how* to begin culture so early in your child's life that all the qualities you desire in him may be natural and instinctive rather than acquired and artificial. The only way to make sure your son shall be a true gentleman and a good man is to make *home and parenthood* that which is *worth copying*.

Know Your Plants. Love and courtesy breed intelligence. No one can cultivate a garden unless he *loves his work* sufficiently to *desire* to study soil, atmosphere, environment, together with the *nature of each plant*. Practical tests of thousands of plants will not insure the right treatment of the *one* plant. *Individual* care is the only sure way to successful gardening in home, school or business. However well the gardener may know the species in general, his wide knowledge must not preclude the study of and attention to the individual. It is always the *new* or *original* type for which the expert gardener is watching, and he generally finds it where least expected.

The home is the best place in which to study the individual. Love necessarily makes parents the most intelligent, the most patient, the most persevering of all child gardeners, because love presents the greatest urge to thoroughness than can be given. If parents find themselves thinking, as I heard one mother say, "Oh, children are such bores!" they are in the wrong place. All mothers are not frank enough to say it, but far too many *feel* this terrible emotion. Such women should never marry. This question should be squarely faced before any woman consents to be guilty of producing a garden of weeds.

Interest. Interest prevents fatigue. Interest stimulates to study and effort. *Love* begets interest. Therefore *love* is essential to successful gardening—love for God, for humanity, for progress, for country, in general, but particularly and directly, love for one's own little garden spot, love for one's own opportunity, love for one's own work and love for one's own seed.

Thus love works from circumference to center and from center to circumference. Love broadens the view while it concentrates the effort.

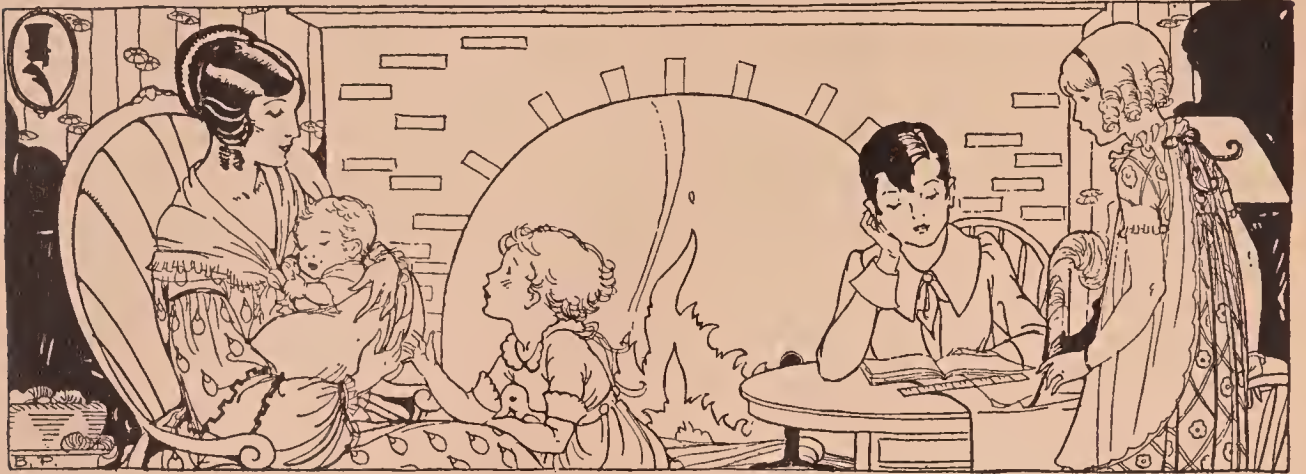
Love begets *interest* and leads to *intelligence*. Love expresses itself *courteously* and receives great returns for investment. Love is critical of self and generous and gentle toward others. Love is patient, untiring, persistent, unselfish. Therefore love is the fulfilling of the law and the measure of the worth of the gospel.

With all thy getting, get love.

Do It Now. If you are unmarried, my reader, begin *now* to prepare for home gardening, for in the twinkling of an eye, the unexpected may happen. Do not delay. If you are married, improve your inadequate preparation, for one never can know too much. Do it now.

If your preparation is theoretical, get right down to *practical work* in your child garden. If you have no child garden, start one now; the world is full of choice young human plants that *need transplanting*.

Culture, environment, love can and will overcome heredity. Try it; and do it now.



Health Habits

DOROTHY REED MENDENHALL, M. D.

APPARENTLY as soon as conception has occurred, the inherited physical and mental traits of the child are settled. Although it is true that the level can not be raised, the environment can bring out and best develop these possibilities, or, on the other hand, may ruin or fail to develop good potentialities.

The environment of the child consists briefly of the mother, during the nine months of intra-uterine life; the home, including the parents as well as the inanimate setting; the community, the immediate neighborhood and the surrounding larger society, and the school. The physical and mental possibilities of the child may be made or marred from the time of conception to adolescence, as it passes through the influence of one after another of these environmental agencies.

The duty of parents in giving their child the most favorable possible environment, as well as a clean, normal inheritance, is becoming more generally appreciated. The importance of citizens being well nurtured as well as well-born is felt by the state to such an extent that to-day parents of low moral standards who either will not or cannot furnish the right home environment for the child are forced to give up their offspring to the care of the state. In all sorts of ways the state attempts to safeguard the physical, mental, and moral well being of the young growing up in a normal home environment.

The educational advantages that are supplied our children have received a new and most important development in the last few years. Health education has been made part of the school curriculum, where health habits are now taught and malnutrition corrected. And recently, throughout the country, the attempt has been made to reach back into the home and see that children are given the right health start. This has been made possible by the foundation of health centers, places where mothers can go to receive free advice from trained

persons regarding the feeding and hygienic care of themselves and their babies and young children.

The modern conception of the duty of parents to children consists of two equally important aims. The first has as its object the best possible physical and mental development of the child from infancy to maturity—to insure the turning out of the best possible finished product with the materials given. The second aim is bit by bit, year by year, to teach the child to understand and to control himself.

Many parents fail to see the importance of this second aim, yet they fully realize that a perfect machine can be ruined by a poor driver. Feeling that their control is surer and safer than that of the immature child, they either do not help the child to an understanding of the way he is made and how he functions, or do not gradually have him take the responsibility of the care and control of himself while under home supervision. Sometimes they fail in both particulars. Blind obedience is demanded of the child, while he is shackled by ignorance and weakened by indulgence and service.

Happily the best physical and mental health of the growing child can be developed at the same time that he is taught independence and given responsibility for keeping himself fit and experience in controlling his own activities. This coöperation of the parents and the child makes in the end for a closer union than even the natural tie of blood, for a partnership has been developed, which has for its aim the promotion of the well-being and ultimate best success of the child.

The consideration and importance of parental control underlies the whole subject of normal growth and development in childhood.

The important health habits or means of promoting health and efficiency are:

1. The proper amount and variety of food, and correct food habits.
2. Sufficient fresh air, indoors and outdoors.
3. An early bed hour, and the number of hours of sleep indicated by the age and temperament of the child.
4. Proper elimination; daily evacuation of the bowels.
5. Cleanliness, especially of hands and face before eating. Frequent changing of underclothes and stockings.
6. Correct posture and gradual muscular development. Plenty of outdoor play.
7. Protection from bodily injury, defect, respiratory blockage, malnutrition, fatigue or nervous shock.
8. Protection from disease germs.

The physical and mental development of the child may be retarded or promoted by intelligent parental control of these different health essentials. These hygienic habits are mutually dependent and interactive. The first lessons in obedience and self control are obtained in the gentle insistence of the young mother that for her baby's own good he shall have regular hours for taking food, for bathing, sleeping and being aired.

Since we are born with no habits, good habits, physical and mental, rather than bad ones, can be developed in any normal child. The hereditary temperament of one child may make it more difficult to develop the proper paths of conduct than in another child. To train a child well takes intelligent understanding of the nature of the child and the desired end, sympathy and patience. A growing organism cannot be finally molded in a moment. Persistence and firmness in both parents are needed from birth on, but more even than these, patience and the power of building slowly without losing sight of the ultimate goal.

In another section foods, feeding and health habits have been discussed. For this reason, we shall begin with our second hygienic point.



The great advantage of fresh air is not its larger oxygen content but its relative freedom from impurities, both organic and inorganic. Indoor air is apt to be stale and full of contaminations. Outdoor air is usually moving, relatively purer and cooler.

Cold air stimulates deep respiration, and so brings about a greater interchange of gases in the lung. Moving air blows away the expired air from about our faces and enables us to inspire purer unused air. For these reasons, fresh air in sleeping and living rooms promotes health in children. Outdoor airing and play in suitable weather is an added benefit. The rays of the sun are directly beneficial, and promote normal growth. (Over-exposure in hot weather is, however, actually dangerous.)

Young children should never be taken into large indoor assemblies of people. It is inexcusable to allow children under school age to go to movies. The possibility of acquiring disease germs, the curtailing of hours of sleep, besides the undesirable nervous excitement, should make any wise parent hesitate to allow such forms of amusement for the young child.

Adenoid growth and enlarged tonsils always impair health, if they are sufficient to block the nasal passages. A child cannot obtain for some reason enough of the right sort of air through the mouth for the needed purpose of oxidation. Mental and physical stunting follow any deprivation or curtailing of oxygen.

The amount of sleep needed by a child depends not only on his age, but his

state of physical development and his nervous condition. There is great difference in the amount of sleep needed by the adult individual; probably these differences could be observed in childhood. All children need an abundance of sleep while in the period of recuperation and possibly greatest growth.

After the first year of life, until the school age, a child should be given a chance for twelve hours sleep at night and a nap or rest period after the mid-day meal. From school age to puberty, at least eleven hours sleep at night should be allowed. Many active children of this age will sleep twelve hours, if the opportunity is given. A highly nervous child should not be in school and should still take a nap or mid-day rest. All during adolescence, nine to ten hours sleep at night is a necessity for the average child.

Few children are in bed enough hours to allow them sufficient sleep. Most children are regularly deprived of sleep. In order to allow time for sleep, an early bed hour is absolutely necessary. The average young child wakes up in the morning when the room is light; outside noise and the commotion of other members of the household may help to waken him. For all these reasons and to insure enough sleep, an early, regular bed hour should be insisted on. Next to food, insufficient sleep seems to affect the general development and growth of the child most seriously. The nervous condition of children is also greatly affected by lack of sleep and rest.

Proper Elimination. Getting rid of waste material is just as important to smooth running of our machine as stoking the engine. Even when this point is realized, we are apt to forget that we have a number of drains and that improper care or clogging of any one of these may affect the others. This is specially true in time of body strain or illness.

We lose the gaseous waste largely by the lungs. Solid waste is gotten rid of through the evacuations of the bowels, the kidneys, and the skin. The habit of having a daily bowel movement at a regular time promotes health, and should be established in infancy. To establish it, we must first of all see that the diet has sufficient bulk. The indigestible portions of vegetables and fruits, and the outer layer of whole cereals (bran) stimulate the activity of the intestinal movements and promote the emptying of the bowels. Many fruits, either from their sugar content, organic acids, or seeds and cellulose, have a specially laxative effect on most individuals. Drinking sufficient water also makes the passage of the food through the bowels easier.

The normal desire to have a bowel movement follows the filling of the stomach. For this reason, and also for the purpose of establishing the habit, a child should be sent to the toilet immediately after breakfast. It is the duty of the mother to see that he goes regularly, and is not hurried. Many children give

up the habit of a regular evacuation at a stated time because they get up too late to have sufficient time before school, and if not attended to at the beginning of the day's activities then that important matter is apt to be neglected. The prevention of constipation is so important that all children must be watched in this respect. Little children should not be permitted to go to an outside toilet in cold weather, but should use a commode in the house. The effect of cold, like the anxiety to get to school, usually has the effect of putting off the evacuation and so breaking up this good habit.

The care of the kidneys is promoted by drinking plenty of water. Even the infant should be given a drink of water between his meals when he is awake. Little children should be taught to drink water between meals. Cold water taken on an empty stomach the first thing in the morning stimulates the digestion and the activity of the bowels. Constipation can frequently be cured by taking a glass of cold water on rising and half hour before meals, and by eating a fruit meal such as an orange, an apple, and two or three figs before retiring.

The skin is constantly oozing waste material through its pores. The cleansing off of this waste material by the daily bath not only keeps the skin in good condition, but it promotes health. A daily tepid sponge, tub or shower bath is good for the average child. The skin should not be soaped daily (except the hands), for this removes the natural oil and makes the skin harsh. Only bland soaps made with vegetable oils should be used for children, and even then the less soap used on the skin the better. Hot baths are unwise, as well as unnecessary. Warm water removes waste and freshens the skin. Hot baths tend to overstimulate children, and frequently the dilation of the superficial blood vessels may be followed by chilling of the surface, and result in the child taking cold. Very cold baths are usually unwise for young children, as they are apt not to react well. A large amount of energy is also used up in making up for the heat lost this way, and for the small child this is not desirable.



Cleanliness. Elimination of body waste is made easier if the clothing worn next to the body is changed frequently. Stockings should be changed at least every other day, and where feet perspire freely, a daily change should occur. The dust from the ground uniting in the moisture from the feet frequently causes a boardlike stocking which is uncomfortable and bad for the feet. The children of the poor are only too apt to sleep in their underclothing; this is an unwise practice, for the change of clothing day and night promotes the function of the skin. In uncleanly surroundings separate night clothes are a necessity, to prevent body vermin from multiplying.

Careful washing of the hands and face will materially help to reduce infectious disease in children. We know that the mouth is the chief portal of entrance for disease germs, and that the hands are the usual means by which these germs are carried to the mouth. Young children should not be allowed to put their hands or any object or plaything into their mouths. They should be taught to wash their hands always after using the toilet, before meals, at bed time, and whenever soiled. Boys are usually very much harder to train in personal cleanliness than girls. From the time the first teeth are cut, they should be cleaned twice a day. Brushing the teeth carefully and regularly after meals and always before going to bed should be taught as soon as the child can hold the tooth brush. Good teeth are maintained only by constant care. Any cavities should be filled as soon as they appear; the care of the first teeth markedly affects the condition of the permanent set. Diseased teeth are a real source of menace to any individual, and a general infection of the blood may follow a localized source of infectious material. The nutrition of the child is also frequently seriously impaired by poor teeth.

Muscular Development. The new-born child has relative to his size only half the muscle material of the adult. The leg muscles of an infant or young child are developed earlier and to a much greater degree than the arm muscles. The shoulder girdle and arm muscles of the young child are lacking or are weak. By the end of the first year, the baby is constantly moving and using his legs and so developing his leg muscles. The young child is in constant motion. Muscular development of the upper extremities can be promoted by massage and by regular exercises to develop the shoulder muscles, but usually does not take place until the child takes part in games such as baseball, tennis, basket ball, or until he learns to swim.

Incorrect posture is easily acquired during the early years of life, when the muscles are weak and poorly developed. Often, too, from early improper feeding, the bones may be irregularly calcified and therefore relatively soft and yielding. One of the definite signs of rickets is a bowed back and inability in an infant to sit up at the usual age.

A great deal of harm is done if the child is allowed to slouch, stand or sit with an improper balance of the chief weight segments of the body upon one another. The head should be balanced on the chest, the chest on the pelvis, and the pelvis on the legs, so that the least possible muscular effort is needed to keep them in this position. If the head, chest, or pelvis is held out of balance at center in relation to the median line of the whole structure, more effort has to be made to keep it in this position, and nervous fatigue quickly results from this prolonged and unnecessary work of the muscles and ligaments.

It is harmful to stand or sit improperly; it is worse to exercise or do physical work in a strained position. Not only is nervous strain and fatigue increased by muscular effort in a bad posture, but if the chest or pelvis is held in an unnatural position, there may be pressure on the internal organs, seriously interfering with their function. This is best seen in the so-called "debutante slouch," or fatigue position, where the young girl seems to break in the middle, standing with her chest caved in and her abdomen protruding. On the other hand, the extreme "military position," forcing the chest out, is equally bad for the boy, as the chest is held up and out of normal alignment. The muscular effort that is necessary to hold this unnatural balance again limits the expansion of the lungs. The subject of posture should be studied by parents, as the weak muscles and soft bones of the young child may cause actual deformity if the habit of standing or sitting improperly in the early years is persisted in.

A simple method to show the correct way of standing is to back yourself against a flat surface, such as a door, and try to stand in such a way that you touch the door with as much of the back surface of the body as possible. In doing this, the curves of the neck, middle of the back and legs are somewhat eliminated. The chin is forced in, the spine straightened, while the arms should hang loosely from the shoulder girdle. Then by walking away from the door, and if a long mirror is near, you may see, if you have followed the directions, what it means to stand correctly.

The child tends to sit, while reading, in a slouching position, often literally on the middle of his spine. Reading with the eyes too close to the book is another danger often accompanying bad reading posture. Serious eye trouble may be developed in this way.

Nutritional disorders such as rickets may produce abnormal bone changes in the leg and foot. Infants when first walking should be watched to see that they bear their weight properly on their feet. Walking on the inside of the foot happens commonly in children with even slight knock-knee. As a result, lengthening of the tendons of the inside of the foot occurs, which may be followed by a letting down of the arch of the foot. This may be obviated by building up the heel on the inside until the back of the foot and leg are in a straight line. Wedging the foot into this straight position helps correct the deformity, but the strengthening of the foot and toe muscles by flexion and extension exercises must be carried out simultaneously to get the best result. Flat-foot can be largely prevented by caring for the foot of the growing child.

While short shoes and stockings may produce deformed toes, corns and bunions, too large shoes are equally harmful, since they let the foot down into the toe of the shoe and so tend to weaken the arch of the foot,

Every parent realizes that one of his duties is to protect the young child from experiencing physical injury due to lack of mature judgment and experience. Any parent allowing an infant to handle firearms or to run unrestrained in a street full of busy traffic would be censured by the entire community. Such accidents are generally felt to be due to gross negligence on the part of the parents.

Allowing a child to be constantly overfatigued by curtailing its hours of sleep and rest, by overstimulating it mentally by precocious development of its immature brain, or allowing it unsuitable amusements for its years, should be considered just as great evidence of lack of parental protection. The loss of an arm or leg is evident; the invisible maiming of the nervous system of the growing child impairs its future possibilities to a much greater extent. A child at birth exhibits little if any fear. The young child should be protected from fright and all manner of nervous shock which may leave an indelible scar and subconsciously alter his future reactions and development. Of all nervous shocks, sex shocks do the greatest damage and have the most far-reaching effect on the future of the child.

The child before school age should be under the actual supervision of a careful, understanding adult. Since this is the period of solitary play, the child is just as contented at home as at field, and if a suitable place to play indoors and outdoors is afforded—a sand box, dishes, a few constructive toys or tools, an equipment for imitating household activities such as a doll washing and ironing equipment—the average child under six will amuse himself. A back yard or a porch and a play corner in the house have the great advantage of keeping him within sight and hearing of his natural guardian. As the desire to play with others develops, and this is rare before four, by coöperation mothers in a neighborhood can watch over a small group of children at play, turn about. By the time the child is in school habits of self control and self restraint and courteous behaviour should have been so fixed that a child can be trusted to carry out, away from supervision, the standards of conduct demanded at home. A mother should, however, know where a child is outside of school hours, and with whom he plays. The habit of reporting after school and accounting for himself should be kept up through the school period. It need not be made irksome or humiliating to the older child, and is not, if he is made to feel his parents' affectionate interest and solicitude for his pleasure and welfare.

Improper food and feeding habits may result in malnutrition. Repeated colds and nose and throat infections, especially where there are marked climatic changes, may result in the development of adenoid tissue or enlarged tonsils in the naso-pharynx. Both of these abnormal growths of tissues are subject to disease and may result in the infection of adjacent tissue, such as the ears, or be the cause of physical or mental retardation.

Such defects can often be prevented, but when this is impossible they can be cured or removed by proper medical treatment. Keeping the naso-pharynx clean, avoiding proximity to nose colds, observing proper brushing of teeth and dental repair from the time of the appearance of the first teeth, will do much to prevent defect and disease and to promote health.

All such defects tend to appear in the pre-school age. If present, they should be remedied before the child goes to school. Their continued presence retards physical and mental development. Once recognized, the sooner remedied the better.

The last hygienic point which rests with the parent is the protection of the child from infectious disease. Any acute infectious disease, even such a mild infection as chicken pox, may cause the death of a child. Thousands of lives are sacrificed annually to the so-called harmless children's diseases. Every disease is liable to leave some part of the body permanently damaged. It may be only a minor part, but many diseases cause serious permanent injury to a vital organ. The only way to prevent the chance of death or disability from infectious diseases is to lessen their occurrence.

Probably the chief harm infectious diseases do is to stunt normal growth and development. The vitality needed for growth has to be spent in combating disease. If this happens at a critical period of development, the retardation of growth may result in permanent maldevelopment. The deformity of teeth due to nutritional changes brought about by a serious infection coinciding with a particular stage of their development is well known. A similar blasting by disease toxins of a vital organ, such as the heart, or the kidneys, or the brain, may be unseen, but is much more serious.

Protection of the neighbor's child will result if the duty of parents towards the protection of their own children from the common infectious diseases of childhood is fully realized and carried out.

Lastly, if the health habits are properly developed under correct parental control, the result can be told by the average annual growth, in height and weight and the general good nutritive condition of the child. The long-legged children, who are always tall for their age, are usually slender. They grow so fast in length that it is difficult to keep them well covered with flesh. With this exception, a normal child should not only be up to height and weight for his age group, but should show a steady average annual increase in height and weight through the years of growth. If his health habits have been well established, and there is no serious defect or disease to prevent this, regular growth will surely occur, and with it steady mental and physical development. If a child is under weight, or seriously under height, it is a parent's business to learn the cause and correct it.

The following synopsis of the chief attributes of good nutrition may be found of assistance to parents in making an estimate of the condition of their own children:



Health Score Card

GOOD NUTRITION	SIGNS OF	POOR NUTRITION
Average for height (less weight for slender, long-legged type) or plump.	<i>Weight</i>	Under average weight for height, thin, emaciated (may be overfat or obese).
Rosy	<i>Color</i>	Pale, waxlike, sallow, putty.
Filled out, elastic.	<i>Skin</i>	Loose, hanging in folds.
Clear.	<i>Complexion</i>	Often blemishes.
Clean and pink.	<i>Tongue</i>	Coated.
Sweet.	<i>Breath</i>	Foul.
Pink.	<i>Mucous Membrane</i>	Pale, colorless.
Bright.	<i>Eyes</i>	Dull, sunken, surrounded with dark or bluish circles.
Glossy, smooth.	<i>Hair</i>	Rough and dull.
Sound, clean, cared for.	<i>Teeth</i>	Decayed or dirty.
Flat on back, even.	<i>Shoulders</i>	Rounded or winged.
Firm, definite "substance."	<i>Flesh</i>	Flabby.
Well-developed, firm.	<i>Muscles</i>	Under-developed, flabby.
Rounded, not distended.	<i>Abdomen</i>	Flat, depressed, distended.
Erect, segments of body properly poised, step elastic.	<i>Carriage</i>	Head not erect, shoulders and hips uneven, chest sunken, abdomen protruding, attitude and step slouching.
Usually happy and good-natured, tractable.	<i>Disposition</i>	Irritable, timid, difficult to manage, nervous, unusually excitable, depressed.

Bright and alert.

Active mentally and physically. Ability to concentrate attention.

Full of life.

Expression

Activity

Dull, petulant or pained.

Listless, easily fatigued.

Usually lacking both mental and physical vigor or interest.

May be over-active.

Good, regular, daily bowel movements.

Digestion

Frequently disturbed digestion, or constipated.

Good, not restricted to few foods. Regular meals.

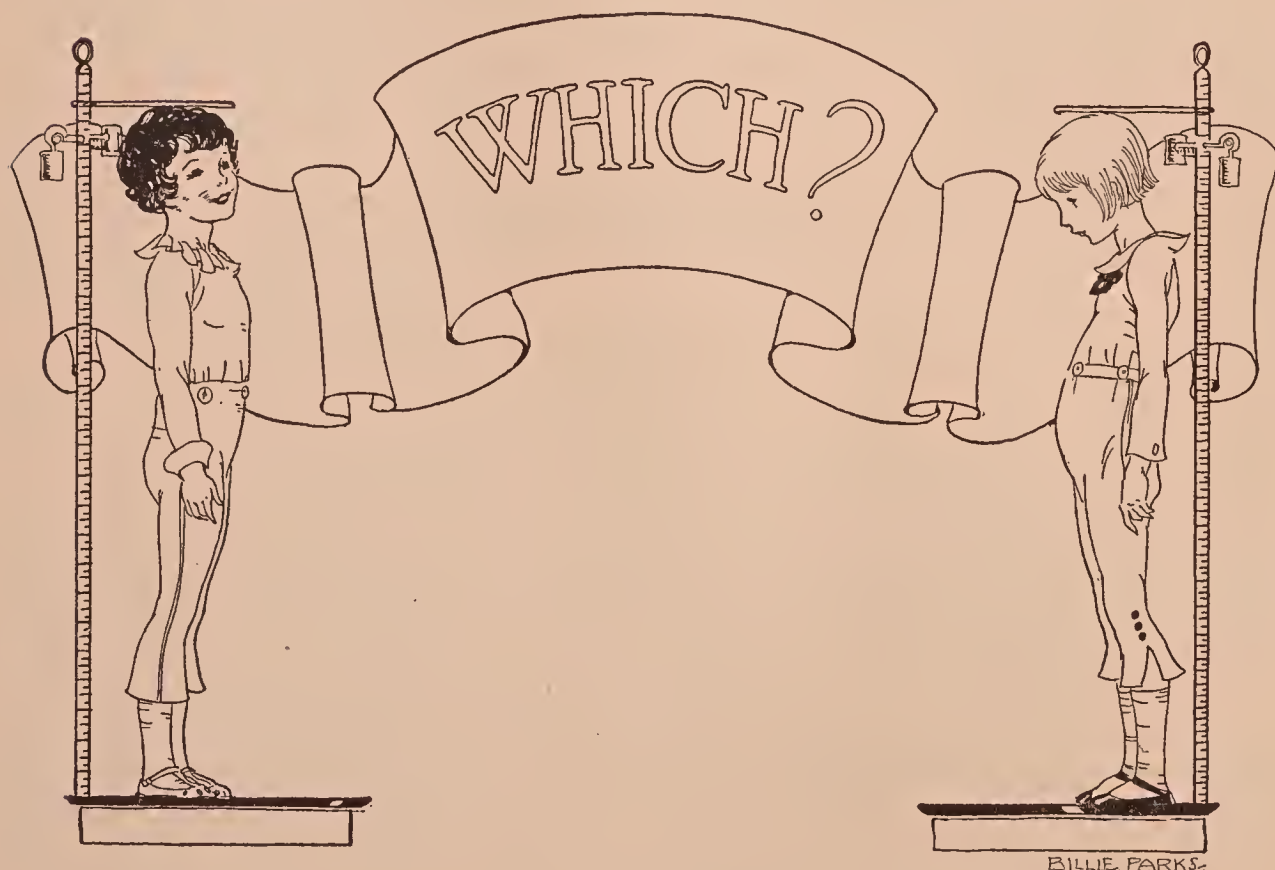
Appetite

Poor, capricious or "finicky." Irregular eating.

Sound. Long hours. Early bed hours.

Sleep

Light, disturbed, restless. Inadequate amount.





Building Through Foods

HELEN PARSONS

SEEING is not always believing! Especially is this true in the case of changes which take place very slowly and gradually before one's eyes. The world is full of the most striking proofs that proper selection of food is one of the greatest factors upon which health and normal development depend. And yet one is constantly confronted with the blindness and indifference of mothers to grave violation of food health rules in the case of their own children. This is to be attributed largely to the fact that penalties, in the form of ill health, may be so gradually inflicted as not to be perceived, or at least not attributed to their real causes.

Perhaps you may have seen a moving picture in which everything is speeded up until movement is many times its usual rate. Shown in this guise, the growth of a flower is truly startling. Its tendrils curl, its leaves expand, and its buds open with snappy jerks. You probably had not realized before that plants have any motion, because it is too slow to be detected by the eye without the aid of such a speeded-up film. The method that scientists now employ for studying our food needs has a certain resemblance to this speeding up of very slow movements. They select a very small animal which needs a relatively brief space of time in which to grow to maturity, reproduce, grow old and die. Such an animal, caged, and fed all its life some monotonous diet of certain foods that are to be tested, reveals very startling and pronounced results.

If the food mixture contains all the ingredients necessary for growth and health, the monotony of the diet will not interfere with its success. The animal

will thrive and live to a ripe old age. However, if the food mixture is unsatisfactory, the little animal does not grow normally. If the food mixture is sufficiently poor, the animal may never grow to adult size, and may even die with some disease caused by the absence from its diet of a necessary food substance. Or, the scientist may observe other indications that the diet is not satisfactory. He may observe a mother animal, when restricted to certain foods, unable to suckle her young. He may observe that on some diets, teeth and bones are very defective and fragile; or that the animals after growing up become old and feeble very rapidly and die before their normal span of life is completed.

When one thinks about it, it is perfectly evident that these things also happen to the human race. But they happen so slowly that they do not claim the attention that they should, and the pity is that the first warnings so easily escape detection! Underweight as a signal of danger has at last won the attention and respect of a fairly wide public. But the equally important warnings of flabby flesh; nervous tension; inertia; drooping posture; pale, pasty complexion; poor, bony framework, and decaying teeth, still go too often unnoticed. Too frequently, also, the connection is not noticed between them and their sequels of inefficiency, breakdown and ill health. From animal experiments and observations on people we know so surely now what these sequels are, and what food habits are safeguards against them, that it seems strange that any mother should wait for warning signals instead of safeguarding the child from the beginning by correct food habits.

KINDS OF FOOD NECESSARY FOR GROWTH AND HEALTH

1. *Tissue Building Foods and Body Regulating Foods.* These foods must supply the "raw material" for the constantly growing young body. Chief among them are the following:

- (a) *Protein.* This forms a part of every tissue in the body. Milk, meat, cheese, eggs and beans are familiar protein foods. Some proteins are not very efficient building material, and for this reason it is necessary that at least 60 per cent of the protein supply for a child should come from animal sources for the reason that these proteins are more like our own body tissues.
- (b) *Mineral Matter.* Calcium (lime), phosphorous and iron are the three mineral substances most frequently present in too small amounts in the diet of the growing child. There is no other source of calcium and phosphorous nearly so good as milk. Leafy vegetables contribute a considerable amount, if taken in large quantity, but milk is the safest source for children. One and one-half pints to one quart of milk should be taken each day by every

child until he is at least fifteen years of age. A pregnant or nursing mother should drink a quart of milk a day in order that the infant may be well nourished and that her own tissues, such as her teeth, shall not suffer. The permanent teeth of the baby are being formed in the jaw during the time he is being nursed! To furnish a sufficient supply of iron, other foods, such as spinach, egg yolk, graham bread and prunes are necessary in the diet. Minerals regulate body processes as well as furnish tissue-building material.

- (c) *Vitamines*. It is known that neither animals nor people will grow and retain health if the diet does not contain certain substances beside protein, fat carbohydrate, mineral matter and water. No one knows yet what these substances are chemically, but we know something of the effects on the body of the absence of at least four of these so-called vitamins. Commercial concerns have been quick to seize an advantage and have advertised extensively some proprietary preparations which are supposed to contain these vitamins. The purchase of these preparations cannot be too strongly condemned, as many of them have been shown to contain only insignificant amounts of vitamine and they are at best a poor investment of money which could more profitably be spent for foods containing not only these vitamins but other necessities.

Vitamin A. Especially important sources of this vitamin are the following:

Milk fat: whole milk, cream.	Many green - colored vegetables:
Cod liver oil.	spinach, lettuce, string beans.
Egg yolk.	Many yellow colored vegetables: car-
Tomato.	rots, yellow sweet potatoes.

Vitamin B. This is found very widespread in vegetables, in the legumes and in whole grains. Especially rich sources are these:

Tomato.	String beans.
Cabbage.	Whole wheat or graham flour.
Spinach.	Liver (but not muscle-cuts of meat).

Vitamin C. This prevents scurvy. It is found in fresh-growing tissues, as fruits and vegetables, but is easily injured in most foods by drying and heating; so it is the safest plan for the diet of the child to contain each day some citrous fruit or raw vegetable or canned tomato. Especially important sources are the following:

Tomato raw.	Raw cabbage.
Tomato canned.	Lettuce.
Orange juice.	Grated: carrots, turnips, rutabagas.
Lemon juice.	

A fourth vitamin has been discovered which has to do with regulating the building of bones and teeth and the prevention of rickets. Cod liver oil, and to a much less extent butter fat, are known to be sources of this vitamin. Very little is known about other sources.

All of these vitamins, as far as we know, are absent, or practically so, from the following foods:

White flour.	Lean muscle-cuts of meat.
Starch.	Bacon.
White bread.	Lard.
Sugar.	Lard substitutes.
Syrup.	

Therefore, a diet made up too largely of these foods, to the exclusion of fresh vegetables and fruits, is a deficient diet. On the other hand, a diet containing plenty of milk fat, whole grains, fresh fruits and vegetables is abundantly safeguarded, and there is no further benefit to be expected from the use of expensive commercial vitamin tablets, even if they contain vitamin, which is often doubtful.

2. *Energy-Giving Foods.* Energy-giving foods are to be found among the cereals, legumes, sugars, starch and fats of the diet, as well as in fruits, vegetables and protein foods. Many energy foods, such as refined cereal products and vegetable fats, are relatively very cheap, and attractive desserts and other dishes can be made from these; so the danger is usually not that we shall lack energy-foods, but that we shall use too large a proportion of those which do not supply anything but energy. The wrong way to plan a menu is to select these energy-foods first. The right way is to include first the body-building and regulating foods and then complete the menu with foods supplying only energy.

The diet should contain a sufficient proportion of these energy-foods in the form of a fat. One-third of the total calories of the diet in the form of fat is considered a satisfactory proportion.

3. *Water.* The very ease with which pure water can be secured perhaps makes us careless of its place in the diet as one of the essential foods. The taking of an abundance of water, especially the glass on rising, has much to do with keeping the digestive tract in a healthy condition, free from constipation. If too-cold water is avoided, there is no reason why water may not be taken at meal-time, although a glass half an hour to an hour before meal-time has a greater effect in stimulating the secretion of digestive juices. An abundance of water is also extremely important in hot weather, for the purpose of regulating body temperature. Little babies, who cannot ask for a drink, may suffer extremely in hot weather for lack of water.

4. *Roughage.* The use of too great a proportion of bland foods, such as bread, sugar, meat, cake, crackers, etc., is one very frequent cause of constipation. Undigested material is of advantage in the digestive tract, in keeping it in a healthy condition. This material may be secured in such foods as vegetables, fruits and whole grains. There is some objection, in the case of children, to the use of too harsh fibrous material, such as coarse stalks of celery and large servings of bran, because the delicate lining of the digestive tract may be easily injured. Equally good results in any event may be secured with a sufficient amount of more tender, finely-divided roughage, as that in chopped cabbage, grated carrots and turnips, cooked vegetables of all kinds, and the pulp of fruit.

THE STIMULATION OF APPETITE

A poor appetite may be attributed to one or more of the following causes:

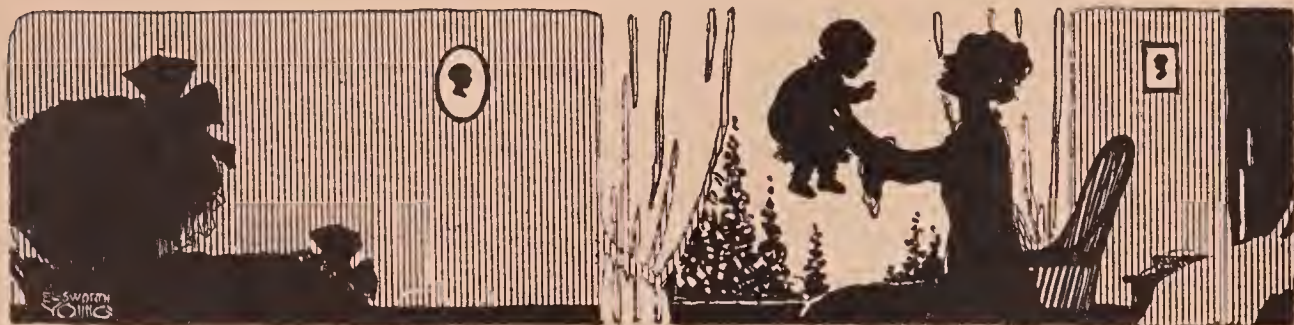
1. *Too Little Vitamin B in the Diet.* It has been found by experiments with animals that a diet deficient in vitamin B will cause a decline in the appetite and ultimately a failure to eat enough food to maintain body weight. In a diet consisting too largely of bread, meat, cake, pudding and candy, it is quite possible to include so little Vitamin B in a child's diet as to affect his appetite. The remedy is to increase the amount of citrous fruits and fresh vegetables.

2. *Irregular Meals.* There should be regular meal hours, and the child should be required to spend a reasonable time at the table, instead of being allowed to return to play as soon as he may desire to do so. It is also necessary to see that the child arises in the morning in abundant time for an unhurried breakfast, and has ample time for the midday meal, if this is between sessions of school.

3. *Too Frequent Meals.* Three meals a day allows the best distribution of food for the normal child after three years of age. Physicians have found that children with poor appetites often have a delayed emptying of the stomach contents into the intestine. These children are not hungry, with a portion of a previous meal in the stomach. The mother may have tried to increase the food intake by luncheons in the middle of the morning and afternoon; obviously this is the wrong thing to do.

4. *Constipation.* An intestine packed with fecal material sets up a series of waves of constriction which pass backwards towards the stomach as well as forward. This is often the cause of a feeling of nausea and a lack of appetite.

5. *Food Prejudices.* A child has sometimes been allowed to acquire an unfortunate attitude toward eating the foods set before him. Food prejudices acquired as a part of the unconscious attempt on the part of the child to dominate and have his own way, or to cling to infantile habits of eating, account in many instances for apparent lack of appetite.



The Child's Mind

DR. ELIZABETH WOOD, PH. D.

I*TS Beginnings.* The modern science of child study, owing its greatest debt to G. Stanley Hall, is founded upon detailed and prolonged observation of infants and children. It is taking away from us many preconceived fancies about the original, unspoiled nature and tendencies of the infant and substituting plain facts, often distasteful to our romantic souls and disconcerting to our pride and self-esteem as parents.

We may as well begin with a warning: those who believe that babies come from heaven into this world perfect and intact—little, untouched scrolls upon which their parents (especially their mothers) will know by instinct what to write—will find nothing here to sustain their faith.

On the contrary, we believe that the infant's body and mind are the inevitable result of the traits which his ancestors, immediate and remote, have possessed, and his parents (including his mother) may be entirely ignorant of the best way to deal with his body, let alone with his rapidly unfolding mind.

It is the purpose of this chapter to discuss the fundamentals of the child's mental equipment and their bearings upon his training and development.

First, as to his "original" nature. The baby is a young animal, more helpless at birth than the young of any other species. But while his infancy and helplessness are more prolonged, he possesses a nervous system more highly organized and capable of immeasurably greater development than that of any other in the animal series.

The first indication of mind or consciousness which the infant exhibits is a tendency to activity. He moves, and he continues to move. Indeed he has moved for several months before he left his mother's body, and consequently he arrives with a nervous mechanism sufficiently coördinated so that he can cry out at the discomfort of his first sensations in a world colder and harsher than he has heretofore known.

From his birth-moment on, allowing for differences in temperament and make-up, his activity will bear a direct relation to his health and well-being. A markedly quiescent child should be an object of concern. To enforce quiet and stillness on a young child is dangerous interference with growth processes.

In addition to the original tendency to activity, certain other evidences of mind, or awareness of the world into which he has come, are apparent in the new-born child. Watson* has demonstrated that at least three types of emotion, with the characteristic movements which reveal them, are present at birth. They are fear, rage and love.

Fear reactions may be elicited (1) by loud noises, or (2) by sudden movements which seem to threaten the infant's support; as, dropping him, pulling suddenly at his covers, etc. Watson observes that the baby's characteristic reaction under such circumstances are (1) catching the breath, (2) clutching at random with the small fists ("the grasping reflex invariably appearing when the child is dropped"), (3) closing the eyes, (4) puckering the lips and (5) crying. Fear, in older children, of course, is manifested by their running away or hiding from the feared object. It is evident that racial experiences, dating back to those of our earliest ancestors, have left traces in the nervous system such that the child is born with certain "pattern reactions" ready to respond to certain stimuli.

Rage, too, is shown by the newest baby, if its movements are hampered. Holding a child's hands, or head or feet will quickly produce crying or screaming, with violent jerking of legs, arms or any free muscles. Later, of course, the child may control some of these reactions, and display others. For example, when he has learned to talk, he may use speech to advantage in expressing his emotion! But the activities noted above are those which may be observed in the new-born infant, and hence are called "original" reactions.

Love reactions, or those manifestly associated with pleasure, Watson describes as cessation of crying, smiling attempts at gurgling or cooing, and in older babies and children, extending the arms. Such reactions may be elicited by stroking, tickling, rocking, patting, etc. The pleasurable sensations produced by such stimuli soon become associated in the child's mind with the person who produces them, so very soon the child smiles or holds out his hands to the mother or nurse or to the father, whose arms are so secure a resting place.

How Fear May Work. In the same way, fear and rage quickly become associated with the persons who caused them, or even, sometimes, with innocent persons present when the emotion arose. Violent dislikes and seemingly unexplainable fears which children sometimes manifest for certain people or things are often due to this mental law or mechanism of "transfer" of the emotion

*Watson, John. *Psychology*. Lippincott, 1920.



from the real cause (which the child may not know) to something else which was present to his consciousness at the same time.

An excellent example of this is found in the case of a seven-year-old child who was referred by a teacher for a mental examination because of marked inability to do the school work of the first grade. He was fearful of everything, of his pets, of storms, of the simplest tasks. A marked feeling of inferiority showed itself in his habit of erasing what he wrote as fast as he wrote it. At the blackboard he would erase with his left hand as rapidly as he could write with the other. He was ashamed of his fears and made a characteristic "transfer" of the emotion which he felt over to the object feared. "My rabbit is afraid of me when I put my hand out," he would say. "So I draw it back again and don't touch him." Thus he rationalized his fear. The mental hygienist who analyzed the case traced the fears and habitual apprehensions to a very early experience in a thunder storm, when the mother, very much frightened by a loud thunder-clap, clutched the child to her, trembling and exclaiming. Her fear was communicated to the child, who always after that showed great distress during a thunder shower. The timidity spread to other fields of his experience, until his mental life was engulfed by it.

A clear explanation of thunder and lightning was made to the boy in a matter-of-fact way, showing him how lightning is like the electric lights by his bed, and how when it thunders it takes a long time for one to hear it after the lightning is really all over. A few days later a thunder shower occurred and this boy, instead of exhibiting his customary terror, took his teacher to the window to show her how long it took to hear the noise. Next, skillful, patient work finally overcame his fear of animals, and his restored self-confidence began to evidence itself in improved school work.

A very interesting case of the transference of an unpleasant emotion under stress was reported from the Merrill-Palmer Nursery School by Dr. Helen Thompson Woolley at the 1923 meeting of the Illinois Mental Hygienic Society. A clever child of five suddenly developed a great fear of the baluster at a turn in the stairs which she has been accustomed to descend every day, and was unable to come down alone. She showed every sign of genuine fear, becoming pale, trembling, and even perspiring. A noteworthy feature of the thing was that the child would go up the same stairs with no difficulty, but would weep and tremble on coming down.

A new baby had recently been born to her mother, and after exhausting other possibilities of explanation, the psychologist determined to see whether there was any connection between this event and the child's sudden access of fear. She was led to investigate this possibility by noting that the child, on two occasions, said in a thoughtful, rather troubled way, "My mamma didn't have that baby when she went to the hospital, and now she has it."

A talk with the father brought out significant facts. The child had been taken several times to the hospital to visit the mother and the new baby. The father had noticed that she asked no questions about the baby, but had attached no significance to this, other than to believe she had no curiosity concerning its origin or arrival. It developed, further, that though they had always gone up to the mother's room in an elevator, they had walked down a stairway closely resembling the one which had seemed to arouse the child's fear at the school. It seemed plain that suppressed curiosity and emotional stress had been present in the child's mind during these hospital visits to such an extent that a violent anxiety—neurosis—had associated itself with the appearance (or the descending) of the stairs. The fact that a calm, clear explanation of the baby's coming dissolved the difficulty seems to prove the case for this explanation of the difficulty.

There is some cause for every fear which children show. To shame or punish a child for exhibiting fear is to risk either fixing it for all time, or setting up some equally undesirable mental habit.

It is necessary to recognize that these three emotions, fear, rage and love, are present and ready to function in every infant, and that the parents' chief problem is to help the child to establish mental habits which will attach his fears, his angers and his loves to the proper objects.

It is possible, for example, to teach a child not to try to fondle a *strange* dog, without making him fear all dogs, let alone all animals. Fear must be utilized to some extent, in order to train a child to look out for his own safety. But to make use of it to frighten a child into obedience, as nurse maids sometimes utilize a fear of the dark (a fear which must be first manufactured, as it is ap-

parently not native to the baby), is a little short of criminal. Most fears are probably the result of imitation or of direct teaching. Neurotic or over-tired mothers and fathers often communicate their own fears and anxieties to their children. In this way children are sometimes rendered afraid of the doctor, of the dentist, or of the hospital so that they neglect to have much-needed care until much damage is done.

Food Idiosyncrasies. Most food idiosyncrasies in children prove to be reflections of the attitude of some adult member of the home circle. A fond parent, watching proudly for any indication of his own personality traits in his child, suggests that the child cannot endure salads, and henceforth salads are anathema to that child. Cases are known of parents actually fostering a dislike of milk in a child through a desire (often unacknowledged and even unknown to themselves) to frustrate and rout a school nurse or a teacher whose interest in their child they have considered officious and a reflection on their intelligence and parental responsibility.

Habits. Nine-tenths of our life is habit. Dr. William Burnham*, that splendid pioneer in mental hygiene for normal children, tells the story of a man who, wishing to recommend a friend for a position, wrote of him, "He is a young man of absolutely no habits." Imagine such a person! He would be helpless. He could not walk, let alone talk. He would be more helpless than a new-born baby, for certain of the infant's reactions to stimuli may be called habit.

Every act of our lives is contributing to the formation of some habitual mode of response, or habit. One can readily see, then, how important it is for children to be wisely helped to form wholesome, useful habits, and to avoid those which make for trouble.

Babies may be taught to demand a light in their sleeping rooms, or to require constant rocking and patting, or any one of scores of unnecessary or even unwholesome attentions, with only a few days or hours of careless or ignorant handling. They may be taught to lie wet and uncomfortable without complaining or to howl lustily until someone makes them properly clean and dry.

Children may be taught to expect so much attention and direction that they remain in an infantile state of dependence all through their childhood and even into adult life. Many maladjustments in older children and adults are due to over-coddling by mother or father—a coddling which the individual learns to demand of all who deal with him. Children badly handled in this way think the teacher is "down on them" in school and refuse to exert themselves. Later they

*See his *Success and Failure as Conditions of Mental Health* and other articles published in *Mental Hygiene* by the National Association of Mental Hygiene, 370 Seventh Avenue, New York City.

may be in the divorce courts because the mate they chose fails to render them the sort of personal service and attention which their unwise upbringing trained them to require.

Children love and need a considerable amount of routine. A program with certain things due and demanded at given times is wholesome for both children and adults. Nothing is more demoralizing to both physical and mental health than an uncharted day, with no captain whose authority is respected.

Good Habits. Proper habits of early retiring, proper eating, and wholesome activity are vital to the child's health. It is a curious but astounding truth that today one finds many parents who apparently cannot control these things, even in young children. One cannot begin too early with the training which is necessary to make habitual these simple living habits, so vital to wholesome growth and development. A divided authority in the household is one main cause of difficulty in proper habit formation. It is fatal to all authority to teach a child that he can ever appeal to one parent against the other, and get a decision reversed.

If parents would think carefully before a demand is made, be certain that the thing they ask is reasonable and right, and then permit neither wheedling nor storming to change their decision, a tremendous amount of time and nerve-consuming stress would be eliminated.

Bad Habits. Bad habits are as easily acquired as good ones, and any habit once fixed is difficult to break. We mention two which are troublesome, and which have a common basis, in that each is the result of the child's desire for pleasurable sensory stimulation, or sensation. They are thumb-sucking and masturbation. Neither of these habits is wholesome, though neither should be viewed with the shocked horror which usually characterizes all discussion or dealing with them—especially in the case of the latter.

Thumb-sucking starts accidentally, and is sometimes encouraged by unwise mothers or nurses who find "it keeps the baby quiet." It sometimes deforms mouths and even thumbs, and it is not wholesome on the physical side. On the mental side, however, it is far more serious, as there is always danger of its persisting beyond babyhood, in which case it leads to the substituting of inactivity and day-dreaming for wholesome activity of mind and body.

Masturbation often begins accidentally, also, and sometimes takes the form of rubbing the parts against some object, as a table, or of movements of the hips. The more usual form is manipulation with the hands. The fact that a child has discovered that a pleasurable sensation may be aroused in this way should be regarded by a parent or a teacher as an unfortunate accident, and not as a sign of native wickedness and degeneracy in the child. Sometimes it is taught to the child by an older playmate, or even, in rare cases, by a perverted adult. While its



excessive practice may lead to bad physical results, this is really rare. The mental results are usually the only thing one has to fear, and they may be deleterious, especially if the case is badly handled by frightened and excited adults who have been wrongly taught that masturbation leads quickly to physical and mental deterioration or insanity or some other catastrophe. The sense of guilt and humiliation which violent scolding or punishment may implant, as also the terrible fears of dire consequences which may result, may effect real mental damage. It is wise to see that physical irritations, like tight or badly fitting clothing, are removed. Absolute cleanliness is vital, and occasionally, especially in boys, surgical care is needed.

The main thing, however, is to direct the child's attention into other channels. Keep him so busy with interesting activities that he has no time to spare. See that he is not too warmly covered and that he does not lie awake in bed, either alone or with another child. Above all, do not let him feel that he is a criminal, always suspected, and always under observation. Few children, especially boys, entirely escape this experience; its effects are lasting and tragic in relatively few cases.

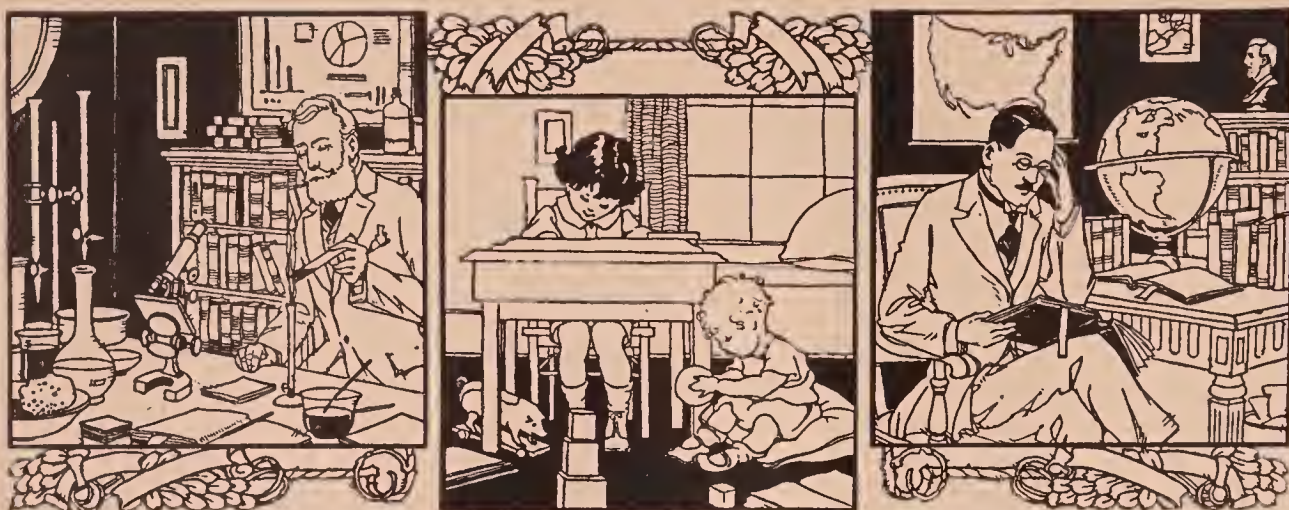
Bed Wetting. Here again we have a habit which is easily formed and is difficult to break. The cause is more often mental than physical, though a physician's diagnosis should be the first step in solving this problem. Intelligent children who have no physical defect which is casual can learn to control this reflex. Punishment is usually of no avail, except that making the child take the natural consequence of the delinquency by regularly and inevitably washing his own soiled clothing or sheets is sometimes effective. Corporal punishment may actually increase the difficulty. Rewards are better, and especially rewards sufficiently attractive to arouse a real and lasting desire in the child himself to

cure the bad habit. Suggestion often works a cure. Each case, of course, requires special study and treatment. But humiliation and terrorizing of the child must be avoided, in this as in all cases where bad habits have been formed. For it is easy to instill feelings of inferiority and a sense of guilt and contamination which will be far more deleterious than the habit itself. Indeed, fixing the child's attention on a bad habit is often a fatal error.

Constructive Aids to Mental Health. As a final word, we propose that parents (including fathers!) check up their behavior to their children for several successive days by means of the appended score card.

A SCORE CARD FOR PARENTS

	Maximum No. Pts.	Actual No. Pts.
I. ENCOURAGING ACTIVITY	25	
Deduct for:		
(a) Failing to provide work and play		
(b) Unnecessary interference with work and play		
(c) Allowing imagination to stagnate		
Score after deductions	
I. SECURING ORDERLY ASSOCIATIONS	25	
Deduct for:		
(a) Failing to relate work to child's experience		
(b) Failing to provide a goal		
(c) Failing to secure a finished job		
Score after deductions	
I. DEVELOPING HEALTHY EMOTIONS	50	
Deduct for:		
(a) Nagging		
(b) Scolding and threatening		
(c) Suspecting and accusing		
(d) Suggesting fears and food idiosyncrasies		
(e) Coddling		
(f) Tyrannizing		
(g) Ridiculing		
(h) Patronizing		
(i) Flattering		
(j) Deceiving		
Score after deductions	
TOTAL SCORE (after deductions)	



The Parent and His Community

MINNETTA S. LEONARD

THE science of educating children is constantly changing. Child study, school activities and all things pertaining to these are being subjected to most rigorous testing and trying out by experts. Doctors of the normal individual, specialists for the abnormal, those who are trying to restore our shell-shocked soldiers, and scientists in the various laboratories are all working in their particular fields to conduct experiments and try out theories in regard to every phase of the developing child. They are handing all these valuable discoveries over to the school men, who in turn are being trained scientifically to test these in the schoolroom. This means that whatever is advanced with all sincerity to-day we may modify or discard to-morrow, when we have greater light.

It is, therefore, with deepest humility that this book is submitted for your use. There has been no attempt to dictate any one practice; this is not a method of education. The contributors and editors have tried to present the fundamental principles which science at present seems to have established conclusively, and to indicate adjustable ways of building upon these. We have done this for two reasons: First, because, as has been said, our theories of education are growing, and we must allow for changes; and second, because if we set forth a method with directions for its use we should center attention upon that rather than upon the child and his development.

The foundation idea of this entire book is that the child himself must be his own educator, and the parent's place is to provide opportunities, to stand by to watch and study the child as he works out his purposes, and then to step in with help only when assistance is needed. With a full understanding of the

child's own nature and needs, the principles and laws of his growth rather than the methods of handwork, music or study to be developed, the parent is free to adapt himself to each situation as it arises, with an intelligence to get the most from that situation.

The illustrations given need not be duplicated in all respects in another home. They are given here to show the way one mother or father worked as a guide to another. But as each child differs from every other child, as each parent and each home are distinctly individual, so each educational opportunity that comes to you will be unlike these described, and the results obtained will vary. This book tries to give insight into the home opportunities, to suggest ways of providing the proper soil and atmosphere, and to provide right guidance, and in other ways to give the parent a grasp of the fundamental principles underlying human development as a guide for him in educating himself for parenthood.

But there is even a greater purpose in this book. The crying need of the hour is for an enlightened voting parenthood. However hard scientists may work, whatever sacrifices teachers may make, whatever ideals earnest public men may strive for, they are "up against a brick wall" which prevents widespread progress because the taxpayers and general public are either blissfully ignorant of anything wrong with the present schools or too indifferent to exert themselves to do anything about it. We must have an educated public.

Americans are noted for getting what they make up their minds to have. We cannot make too great a sacrifice to secure the specialist to cure our babies when they are sick and in danger; in such a crisis the best is none too good. But we are indifferent to the need of paying for the prevention of ills, particularly of moral ills. However much we may say to the contrary evidence shows that Americans as a whole are not yet desiring fine schools.

In this book there has been an endeavor to show that the true development of a child comes only in social contact while it is developing. Perhaps you are able to give this to your child because you have good public schools near your home, or are so fortunate as to have a good private school and can afford to pay the tuition (and may I say that unless the private school is developing the basic principles here advocated the child is likely to be harmed more in the private school than in the public). Or, you are so well placed financially as to have a large, well-equipped playroom to accommodate the neighborhood, with servants enough to leave you free to be the teacher and direct the work. If so, you are fortunate indeed. But, parents, your duty does not end here. There are those of us who have all the training necessary to carry out these theories, a few who have money for equipment, but we haven't the right schools for our children now, and our hands are tied; we are helpless, so far as our children's immediate needs are concerned. For the sake of less fortunate mothers through-

out the country, let us beg of you to pass on whatever of help you may get from these pages to your community. Throw yourself into the Parent-Teacher work of your district and foster in every possible way classes which are organized for the definite, earnest study of the educational problems.

And this is not only a public duty—it is your duty to your own child. If a school is not good enough for your child, it isn't good enough for any child in your community. A chain is just as strong as its weakest link. All the love, care and thought you may give your child is not going to protect him from the harm he will suffer from the selfish, immoral or criminal tendencies which you are allowing to develop in your public schools because of public indifference. Perhaps the greatest terror we mothers faced in the great war as we held our babies, our girls and boys, was our sense of utter helplessness to protect them should war come again, and nearer home. The time for parents to fight is right now. The war makers and peace makers of the future, the men and women who are to control the destinies of our matured babies, are at this moment in the making. What are you going to do to make the future world of your child and your grandchildren a better one than ours?

You have watched a baby building a block tower? The second block usually stays put, however crooked. Sometimes the third stays. But the pile is so far out of plumb that the fourth or fifth refuses to stay, and the whole topples over. Gradually by repeated trial the baby learns to place each block squarely and accurately upon these below until by proper balance he builds a high tower. His first attempt stands for the first three or four blocks and then falls. The block which makes the tower fall isn't the last block that is placed in position. Our present concern in the school system is much like the baby's in the last block. The errors in our present system become evident in the upper grades or the junior high school, and parents and school boards are demanding a reconstruction of these study years. They are so busy over this problem that it has not occurred to them that the foundation is at fault. Wise economy for the future means that while we do all in our power to save the boy and girl towers already toppling, we at the same time lay securely the first stones in the growing towers.

Your business, dear parent, is in laying the foundation stones and in seeing to it that each succeeding stone is placed true and firm, not only for your own child but for all children.

The United States government furnishes all sorts of bulletins giving help to mothers and teachers for such study. The editor of this book will be only too glad to furnish any suggestions for books to read, help in organizing mothers' study clubs, and so on, if you care to write to her.



Infancy





Feeding Schedule for Infants

SIX TO TEN MONTHS OF AGE

Six Months

- 6:00 A. M. Nurse.
- 10:00 A. M. Cereal (farina) ; nurse.
- 2:00 P. M. Nurse.
- 6:00 P. M. Cereal (farina) ; nurse.
- 10:00 P. M. Nurse.

Cook the farina two hours or longer in a double boiler ; serve thick, with a sprinkle of sugar ; no milk. Start in with one teaspoonful, and increase by one teaspoonful a day until the baby is taking from four to five tablespoonsful at the end of the sixth month.

Seven Months

- 6:00 A. M. Nurse.
- 10:00 A. M. Cereal (farina) ; nurse.
- 2:00 P. M. Vegetable (spinach or carrots) ; nurse.
- 6:00 P. M. Cereal (farina) ; nurse.
- 10:00 P. M. Nurse.

Directions for Preparing Vegetables.

Place a handful of spinach in salt water or soup stock (beef, mutton or chicken). Cook for twenty-five minutes, or until soft and tender. Add one teaspoonful of butter. Mix well and put through sieve. Do not throw away the water in which the vegetable is cooked, but feed it to the baby with the vegetable. (All vegetables should be prepared similarly.)

Eight Months

- 6:00 A. M. Nurse.
 10:00 A. M. Cereal (farina); nurse.
 2:00 P. M. Vegetable (spinach or carrots), baked potato, toast and broth
 (beef, mutton or chicken—all fat skimmed off).
 6:00 P. M. Cereal (farina); nurse.
 10:00 P. M. Nurse.

Nine Months

- 6:00 A. M. Three ounces whole milk (boiled three minutes); nurse.
 10:00 A. M. Cereal (farina), toast, broth (beef, mutton or chicken, taking off
 all fat).
 2:00 P. M. Vegetable (spinach or carrots), baked potato, cooked fruit (apple
 sauce or baked apple).
 6:00 P. M. Cereal (farina), toast, broth (beef, mutton or chicken).
 10:00 P. M. Three ounces whole milk; nurse.

Nine and One-half Months

- 6:00 A. M. Eight ounces milk.
 10:00 A. M. Cereal (farina), toast, broth (beef, mutton or chicken).
 2:00 P. M. Vegetable (spinach or carrots), potato, baked apple.
 6:00 P. M. Cereal (farina), toast, eight ounces of milk.

(NOTE: After ten months the vegetable, fruit and cereal diet may be varied by using any of the following in place of those above prescribed.)

Vegetables

Spinach	Asparagus
Carrots	Swiss Chard
Peas	Cauliflower
String Beans	Celery
Baked Potatoes	

Fruits

Apples	Pears
Prunes	Peaches
Apricots	Plums
Ripe Bananas	

Cereals

Farina	Rice
Sago	

Oatmeal or any other cooked cereals.

These must be cooked at least one hour. Children cannot digest half-cooked starches.



Development of the First Six Months

MINNETTA S. LEONARD

Physical Habits. Too great emphasis cannot be placed upon physical habits, which, few in number, are named below. Physical well-being also depends upon other considerations, such as moral tendencies, etc., referred to in this chapter.

Moral Well-Being. Moral development begins at birth. The foundation of parents' control in after years is laid right here in the establishment of control over habits of—

1. Sleep, at regular times and the proper amount.
2. Eating, the exact twenty minutes, no more. This means sticking to business and getting the needed amount within the time.
3. Teaching the baby to wait without crying until the exact minute for the next meal.
4. Toilet at a regular hour each day.
5. Occupation. The baby should lie happily and quietly, occupying himself during waking hours. His business now is to learn his own body, how to manage it, and to develop his senses through seeing, hearing, and touching things near him. His problem is altogether individual, and he should not be interrupted in its solution by frequent attentions from the mother, nurse or other people.
6. Thumb-Sucking. This is a dangerous occupation and should be stopped at the outset. It starts at the age of about three months, and is easily broken by putting the child in a sleeping bag; by putting soft linen bags or mittens on hands, and other ways a mother may devise for herself. If allowed to become a habit, it will be hard to break. It carries throat and nose troubles, is unsanitary, endangers the child's health, and in some cases deforms the roof of the mouth.

Emotional Habits. These are important matters, and may thus briefly be summarized:

1. Happy contentment while awake.
2. He should not cry, be held, rocked, taken up, or played with. If these habits are started, much trouble to discontinue them may follow. Care should be taken to see that no wrinkles or pins, or buttons in his clothing make him

uncomfortable. His position should be changed often, to rest him. If free from pain, with attractive objects nearby to hold his attention, he can amuse himself. If he cries to be picked up, let him cry. Never reward crying by giving at the time the thing cried for. If he should have it, wait until his mind has been distracted from his want and the crying stopped.

Mental Habits. Developing senses is the chief business of these months, the senses of sight, hearing, touch, taste. Out of these develop association of ideas to form concepts of persons and objects, or memories, recall of past sensations, and imagination. These must develop before reason can come. To develop the senses there must be also the parent's care as well, to assist muscular coördinations through bodily exercise. The manner of procedure is suggested under the section devoted to playthings.

Clothing. Clothing should be warm, but not too warm; always loose, and free from rough seams, many buttons, and fancy trimming. Diaper should be fastened in drawer-fashion on each side of leg and hips rather than the middle. This prevents uncomfortable pull and a big bunch between the legs, allowing the legs to come down straight rather than bowed. It takes four pins to fasten it thus—one on each side, to the shirt, and one to fasten the opening on each side, to the stocking.

Clothing should be changed night and morning, to rest the skin.

Proper Environment. The room should be free from loud and sudden noises. People who handle the baby should be quiet, and not "jerky" in their movements; they should have soft, quiet voices. Soft singing, quiet music on the phonograph with fibre needle, and quiet instrumental music are appropriate. Plenty of sunshine and fresh air are requisites. There should be few people coming and going. Let there be no picking up and tossing, trotting, etc.; the baby should not be handled and moved about, but his crib or carriage may be moved about from room to room, giving him an opportunity to get new sensations and new things to look at.

Playthings. The baby should have playthings, preferably those to train the eyes, such as bright balls with string attached, or other objects hung nearby to look at. Balls or objects which baby's eyes are fixed upon may be slowly moved up and down, swung back and forth, round and round, to encourage eye movement.

To encourage reaching and kicking, these same things may be put within reach and moved slowly away; or they may be hung near his feet or hands to invite effort. A ball or bright bit fastened to his carriage encourages kicking and reaching. A rod across the basket for him to pull on strengthens arms and back muscles.

Also give him soft toys, rattles, spoons, etc., for him to grasp, turn about, drop, and pick up.

Caution. Avoid all cheap rattles which have pebbles or other dangerous things inside which might come out if he smashes them; also toys with coloring which comes off on hands or mouth; toys with sharp edges or corners which may injure him; toys which are small enough to go into the mouth; rubber toys which have whistles so poorly put in as to come loose easily.

DEVELOPMENT FROM SIX MONTHS TO ONE YEAR



Physical Development. The baby's sleep should be lessened gradually to sixteen hours, with two naps daily. Feeding may be changed to four feedings a day, four hours apart, by the time he is one year old. He should be weaned during this period.

He should gain certain controls—learn to sit up, to creep, to stand by a chair during these months. In some cases the baby will walk, but if he does not, it is not wise to urge it. When his muscular development warrants it, he will of his own accord try to walk. Urging too soon is likely to produce bowed legs.

Moral Development. There must be continuation of parental control in matters listed above.

During these months occasion may arise to teach the meaning of "No, no!" Parent must be firm in demanding obedience, and ever after insist upon it in the same situations. A neglect on the mother's part to enforce her command one time may cause the baby to try her out several times. This is the beginning of the establishment of habits of obedience to "Don't touch," "Must not," and the various other commands which will arise in the next year and a half.

There will be changes in diet which will possibly bring need for control—from the breast to the bottle, and the addition of soups, etc. This is the crucial time for the mother's control. She must not give an inch, find as pleasant a way to establish control as possible, but *keep the control*.

Mental Development. Memory, associations, some dawnings of reasoning and imagination will begin to show. The baby will give evidence that he begins to understand what is said to him. He will make sounds which later will develop into talk. He begins to imitate.

Emotional Development. There should be a continuation of the early habits. The child must be protected from sudden noises, from surprises or other shocks, because fear is likely to develop during these months. He must be protected

from overstimulation and excitement, which cause nervousness and strain. Try to prevent tossing, tickling, and loud voices from strangers, who may cause frights.

Environment. He may now see more people, for he needs companionship of others. He should become accustomed to being left with others besides his parents. Quiet, pleasant surroundings, and little handling should continue.

Helps for His Developing Needs. He now needs playthings of a greater variety—things which he can push, creep after, roll, pound. These encourage creeping, standing, walking. He needs large corked bottles to help in forming hand and eye coördinations; boxes with tops which he can put on and remove with ease. He must be supplied with objects such as spoons, pans, spools, tea strainers, ivory rings, keys on keyrings, soft and hard balls, both wooly and smooth, which develop his senses by their contrasts.

Companions. He needs people with whom he can talk and sing little songs and play finger games. He is trying to talk, to associate names with objects and to get acquainted with the parts of his body. All the little rhymes, like "This little pig went to market," "Chin-chopper," etc., call attention to his toes, fingers, eyes, nose and mouth; these help through companionship to develop the power to talk and through imitating actions, better bodily control. The habit of feeling happy is also established in this way. He is ready to look at pictures and to be shown animals and objects as he is taken about, hearing the name coupled with each.

DEVELOPMENT FROM ONE TO TWO YEARS



Physical Well-Being. The following regulations should be scrupulously observed during this important period:

Sleep may be reduced to fifteen hours, including two day-time naps. Food should now be more varied (see article on this subject in this volume). The child must have regular habits of evacuation. It will help to have toys on his chair-tray while he is at the toilet, to keep him there until his work is done. Be sure that he gets plenty of water and orange juice.

For exercise let him have boxes for steps and give him any safe things which encourage climbing, pulling, walking, carrying of objects without dropping. Select objects for lifting and pounding.

Moral Development. There must be no letting-down in the enforcement of the health rules already given.

The ability to creep and walk brings the baby in touch with all sorts of things, many of which are not good for him. He must learn now that certain

things must not be touched, that some hurt him, some that he will hurt, that others, like cake and sugar, which may be near him, he must not have. To establish control step by step now will save much trouble and suffering for mother and child later. At this time may be given commands, such as "Bring," "Take," "Give," "Stand up," "Hold still."

Mental Stimulus. He needs many harmless objects to pound, throw, carry, pull, push, squeeze, to help learn their properties. He should have hard balls and soft balls; heavy blocks and light ones; things which are smooth and things which are rough; things to pour with, like a pan and a cup, and water; sand, spoons and cooking dishes, (graduated filled vegetable cans are excellent to roll and pile up); block nests to pile up, at first helter skelter, and gradually in graduated piles or rows. He needs a kiddie car, a small wagon, a large string train of cars, an animal to pull on a string, and a chair swing hung in the doorway. His need is to get acquainted with the things in the world about him and to get control of his body through use of these. If you give him plenty of harmless things, you prevent injury to other objects.

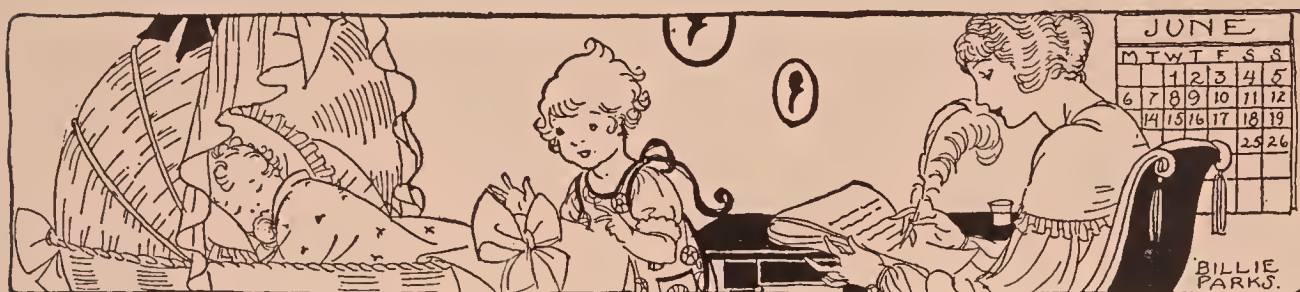
Emotional Phase. There should be happy, sunny employment. Baby should not be allowed to fret or cry. There should be an absence of fear, and we must prevent, as far as possible, the occasion for anger; when it arises, divert attention as quickly as possible, to prevent the beginning of a habit. Keeping the little one busy is the great secret of his happiness. Examples of control, lack of nerves, quiet patience, and calm voice are indispensable aids in forming these habits. Soft laughter and singing have their effect.

Sense-training calls for piano playing and soft singing, bright colored objects and pictures, and attention to taste of foods.

The Baby Yard. It is wise, in order to prevent injury to the baby and to things about the house, to have a baby yard. The baby must have all the things in it to keep him busy and happy while his mother is engaged in her work.

Companions. Occasionally give him the society of other children. It will inaugurate the time when he must begin to learn the difference between *yours* and *mine*. Such companionship will teach him to give up objects he wants which belong to others. He should begin to talk; people who talk to him must not impede his progress by using "baby talk." Show him more pictures, and associate the names with the pictures. Sing to him. Walk slowly with him away from home environment, and talk a good deal in simple language about the things seen. Begin to tell him little stories of every-day happenings in which he is the hero.

Attainments at the Second Birthday. At the end of this year the child should have the development given at the beginning of the next section.



Diary of a Baby from Birth to the Age of Two Years

LOUISE M. FESSENDEN

THE record from which this section has been arranged was taken day by day as things occurred. A desk calendar with a fair-sized writing space under the date and a blank reverse side to each sheet is a convenient form to jot things down on in a hurry. The desire to keep such a record adds not only greater insight into the baby's nature, but is a real joy. Instead of having only the most notable acts to repeat to friends, parents get great enjoyment out of seeing inconspicuous, slow, but real development in their baby.

Much in the following pages for older children is taken from a similar record and from what could be obtained from like records of other mothers, as well. It isn't guesswork or theory, but outgrowth of the lives of real children.

For convenient reference, the notes have been classified under the following headings: Physical Development, Motor Control, Sense Impressions, Imitation, Association, Memory, Imagination, Play and Development of Language.

Most of the record is taken from the history of the child John. As an interesting basis of comparison, some notes in regard to his sister Elizabeth, fifteen months younger, have been added.

PHYSICAL DEVELOPMENT

First month. Sixth day. John raised his head from the bed, when lying on his stomach. He has a strong backbone.

Fourteenth day. Tears were noticed.

Twenty-second day. When lying on his stomach, he turned his head completely over, changing from one cheek to the other.

Twenty-seventh day. In the same position, he raised himself on his arms, lifting himself several inches from the bed. He did this repeatedly.

Twenty-eighth day. He seemed to be more conscious of his hands. He fingered parts of his carriage.

When lying across his mother's knees he lifted his head.

Second month. Fifteenth day. Perspiration was noticed.

Twenty-sixth day. He edged himself forward on a bed, covering about a foot of space. A watch was placed on the bed in front of him, and his progress was in its direction.

He watched his hands, noticeably.

He turned entirely over by himself.

Third month. Twenty-eighth day. He edged forward more than a foot on the bed, straight over the edge, and headlong to the floor.

Fifth month. Second day. He can take a creeping position, and raise himself on his toes till his body is a bow, curving from his hands to his feet. He lunges forward, and by this means is able to cover a considerable distance, on a full-sized bed or in the "kiddie-coop."

When he is in his buggy, he throws himself around so that he is likely at any moment to overbalance it.

He sits alone a little, but is rather unsteady. He holds his head up quite well, but his back is uncertain in a sitting position.

Sixth month. Twenty-second day. Elizabeth turned over.

Eighth month. Eleventh day. John had a great romp with Mary Ellen on her bed. He tried to crawl over the edge as usual, and cried when prevented by a bolster. He crawled from one end of the bed to the other, again and again, after a red-covered book or a bright nickled thermos bottle.

This is the quickest locomotion that has been observed up to the present.

Twentieth day. Elizabeth cut her first tooth. She cannot sit up very straight.

Twenty-fourth day. John sits up in his crib. He creeps vigorously over the big bed in a series of powerful lunges. He comes vehemently towards Mary Ellen or mother when we sit on the edge. We make a barricade of pillows and blankets, and his delight is to burrow his head into the pile, and to try to climb over.

Twenty-sixth day. Mary Ellen put a big rocker near the bed where John was playing. He scrambled over the edge and into the chair-seat, and lay there for several minutes, rocking himself by pushing the bed with his foot, with evident pleasure.

Ninth month. Sixth day. John looked over the edge of his crib to-day. There were pillows in it, and he climbed up on them and was delighted to be able to see the whole room. He repeated the climbing many times.

Eighth day. John sat in Mary Ellen's high chair, tied in by a towel.

Ninth day. John's first tooth came through.

Tenth day. He sat up in his buggy out-of-doors.

He played on the living-room floor.

Twelfth day. Elizabeth sits alone fairly well now. She wriggles around



on the floor, sometimes getting entirely off of her blanket.

John crept all over the floor, both up-stairs and down-stairs. He crept up and down the up-stairs hall, in a game with Mary Ellen. She would go to one end and leave him at the other, and he would rapidly creep to her.

He drew himself to a nearly upright position, clinging to the rungs of Mary Ellen's high chair.

Nineteenth day. John kicked his covers off again and again, and laughed aloud.

Twenty-third day. John sat for an hour in the rocking-horse chair ("Dock and Bang") and tried to rock it.

Twenty-fifth day. He stood upright in his crib, holding to the side. He crowed aloud in glee to attract attention.

Tenth month. First day. John stands up whenever he can find something to support him. Tables are the favorites, either the one in the living-room or the one in his room.

He crawled to the bottom of the stairs, and put his hands on the lowest step.

Fifth day. John took his first step. A description of this important event is given under the heading "Motor Control".

Sixteenth day. He moves freely about the floor, and climbs up to a standing position beside everything. He is not following up his walking accomplishment, but seems to prefer dropping on all-fours when there is an open space to be traversed.

The children say that he climbed to the fourth stair step. The authenticity of this feat is in dispute. At any rate, he fell to the floor with a loud bump.

Thirtieth day. John climbed nine stair steps.

Eleventh month. Fifth day. John climbed to the top of stairs. He creeps everywhere with amazing rapidity. He walks along by the rim of the bathtub or beside anything that resembles a railing, passing his hand over the support with a light touch. He will come to his mother across a short vacancy, perhaps as wide as a foot. The movement is not exactly walking, but is more like a lunge.

Twenty-eighth day. John tipped the black buggy over backwards.

Twelfth month. Sixteenth day. He made great progress in walking to-day. For the past three or four days he has been standing alone for an instant

or two, and has taken one or two staggering steps from one person to another. To-day he walked with mincing steps from his mother to Nancy, over a space of about four feet, many times and with increasing confidence.

He threw himself headlong off of his mother's lap during his bath.

Twenty-eighth day. He took a walk of about seven feet, from the front door to the foot of the stairs. He walks all around the rooms, and does not drop to a creeping position except over quite large intervals between pieces of furniture. Sometimes he attempts these and tumbles.

Thirteenth month. First day. Height, twenty-eight and five-eighth inches.

Eighth day. John's mother has been putting him on the grass and letting him have the run of the place. He is in the seventh heaven. He delights to crawl up and down the terrace and to play with outdoor things, such as the garden hose-carriage, or Mary Ellen's old express wagon overturned.

Fourteenth day. Elizabeth sits in her high chair and "makes music" on the piano.

Sixteenth day. John drank milk from a cup, holding it in his two hands.

Eighteenth day. He walks everywhere now, with a tottering step. He does not lose his balance very often, but occasionally he will suddenly take a seat on the floor. He walked from the front door all the way to the kitchen, taking a circuitous route of at least twenty-five feet, with but two very slight stops for rest against walls or furniture.

Twentieth day. The first climbing attempts which have been observed were noticed. He raised his foot as if to put it over the coop-rail. This movement was repeated several times.

Fourteenth month. Fourteenth day. He is badly pigeon-toed. He walks so fast that he usually trips himself.

Sixteenth month. Nineteenth day. John can push Mary Ellen in her big coaster-wagon all around the house on the sidewalk outside. He is very strong, and built on a large scale in every respect—large head, broad shoulders, fat round legs, solid body.

Seventeenth month. Third day. Elizabeth pulled herself to a standing position.

Twenty-first month. Thirteenth day. John escapes at every opportunity and runs off down the street. To-day he was discovered down by the ball-park (about six hundred feet from home), trotting along in the middle of the road, and dragging Mary Ellen's wagon behind him.

Fifteenth day. John walked downtown and back, with his mother, a distance of about half a mile each way. This is the first time he has made the trip without a lift.

MOTOR CONTROL



Under this heading are grouped acts of the child John which seemed to have conscious purpose behind them. Originally some of these observations were further subdivided under the headings of "Instincts" and "Emotions." However, it was found that these manifestations fell more naturally into other groups, such as "Sense Impressions," "Imitation," and others, including the present one, and accordingly this arrangement has been adopted.

First month. Fifth day. John succeeded in getting his thumb in his mouth.

Eighth day. He managed to get his whole fist in his mouth.

Twenty-sixth day. Nancy waved her hand in a circle above his head. His eyes followed her hand.

Second month. Fifth day. He held the edge of his bathtub with a firm grasp.

Third month. Tenth day. He "took to his bottle" nicely.

Seventeenth day. He held his hands up in front of his face, watching them with absorption. He moved his fingers, observing them with interest and curiosity.

Twenty-sixth day. He took his bottle in his hands, and carried it to his mouth.

Thirtieth day. He held the knitted doll by its foot. He follows the rubber doll with his eyes when someone squeaks it.

Fourth month. Fifth day. He held the ribbons of his kimono, one in each hand.

Sixth day. He noticed the knitted doll's bells, and edged towards it, trying to reach it. Sometimes he would manage to touch it and the bells would ring.

Sixth month. Second day. He can propel himself towards a doll or water-bottle or other object of desire, over a distance of about half a foot. He is able to hold a bottle to his lips, and could drink his milk or water in this way, except that he is likely to hold the bottle at the wrong angle, with the result that much air is taken and little or no liquid.

He reaches for a spoon and tries to put it in his mouth.

Eighth month. Eleventh day. Handled closed safety-pin. This is one of his favorite toys. He knocked his bottle against the bars of his crib.

He crawled up and down a bed, in pursuit of a red-covered book, as described under "Physical Development."

He beat his foot on the floor of the "kiddie-coop" so loudly that it could be heard all over the house.

Tenth month. First day. He stands with his hands on the lower shelf of the

library table and removes books and magazines.

He likes "Dock and Dang", the rocking-horse chair.

He rocks himself in it, and stands upright on its floor.

Fifth day. He took his first step. He was standing beside the light straw chair in the guest-room and it slipped a little under his pressure, sliding a few inches along the floor. He very slowly and with infinite pains dragged a foot forward to support his weight. Then he drew the other foot under him. Presently the watchers saw him push the chair a short distance and laboriously repeat the process of bringing his feet into line. During the ensuing half-hour, he practised his new accomplishment without rest, performing the miracle with rapidly increasing ease. He pulls himself up very quickly and easily by a chair or in his crib, holding the side, or in the coop, or in the kitchen by the fireless cooker, or by the lower shelf of the living-room table.

Twelfth month. Twenty-eighth day. With a tin can he beat the tray which is used in weighing him, showing enjoyment and evident pride in his accomplishment.

He managed to get a knife out of a dresser-drawer, closed the drawer, and was creeping down the hall with it when he was apprehended.

Fourteenth month. Fourteenth day. He responds to "baby dance", or "dance a little baby" in the funniest way, bobbing up and down from the knees.

Twenty-eighth day. He often asks for a hammer. He is very fond of pounding.

SENSE IMPRESSIONS

First month. Fourth day. The first reaction to a sound stimulus was observed when John gave a start and a cry at the sounding of the hospital gong.

Twenty-fourth day. The child's father held him when standing under a lighted chandelier. The child's eyes sought and found the light, and continued to do so as often as the father turned or otherwise shifted his position.

Twenty-eighth day. John winked and started when the telephone rang near where he was nursing.

Third month. Thirtieth day. He followed a rubber doll with his eyes when someone pinched it to make it squeak. He did not want the rubber doll in his month.

Fourth month. Sixth day. He was interested in the doll's bells.

Sixth month. Tenth day. He investigates the edge of his bathtub every day.



Sometimes he turns entirely over in his bath in order to examine it more closely. He grasps the edge so tightly that it is difficult to loosen his hands.

He has discovered several ways to make noises for his own entertainment, such as beating his bottle against the bars of his crib, or striking the floor of the coop with his foot. These accomplishments have been mentioned before. To-day he dropped a talcum-box four times, as quickly as it was returned to him, evidently liking the noise.

Twenty-first day. He laughed at Nancy's antics for his benefit. When she talked to him, he noticed her teeth and watched her mouth as if fascinated. He is always interested in her glasses.

He had the most seraphic expression when his mother kissed his palm.

Tenth month. First day. He likes to play with an old magazine or catalogue, tearing off one sheet after another, presumably in order to enjoy the sound of tearing. He sits happily in his buggy for an hour, watching the children play.

Eleventh month. Twenty-third day. He enjoyed beating two tin cups together.

Twelfth month. Twenty-eighth day. His delight is to sit on the floor in front of the cupboard where pots and pans are kept and pull them out on the kitchen floor. This is the most satisfying noise-producing method that he has yet evolved.

Thirteenth month. Thirteenth day. Elizabeth's reaction to the piano is much more marked than John's. She strikes a note at random, and leans back in her mother's arms to listen, with evident enjoyment.

Seventeenth month. Nineteenth day. When John hears music of any sort, on the street or from a neighbor's victrola or player-piano, he begins to play "Flying Birds," rising on his toes, whirling and waving his arms. Sometimes he lifts his hand as if for silence, and stands very quietly listening.

Twenty-third day. For some time the children have been running, marching and skipping to music, as well as playing "Flying Birds," "High-stepping Horses," etc. There is one rhythm from "Peter Pan" musical setting in which the child represents a sailor pulling ropes in order to raise or lower the sails of an imaginary ship. John did this to-day without suggestion other than that given by the music.

IMITATION

First month. Eighth day. Miss Warren (nurse) reported that John smiled at her.

Eighth month. Eleventh day. He beat on the key-board of a toy piano, after being shown how to do it.

Twenty-fifth day. He can wave his hand "Bye-bye," and play "Peek-a-boo" with a handkerchief or napkin. He seems to remember the "Boo!" and waits expectantly for it.

Ninth month. Second day. When John waves his hand in response to "Bye-bye" he first thinks a minute. If one perseveres, he nearly always responds, but not at once. It takes time to make the coördination.

Sixth day. Nancy makes a clicking sound with her lips, and says, "Give me a kiss". John makes a similar noise in response.

Tenth day. He attempted to reproduce Nancy's trilling.

Tenth month. First day. He holds a magazine in a reading position, and seems to be studying it with absorption.

Eleventh month. Tenth day. He attempted to put on a shoe.

Sixteenth day. He tries to put a cap on his head, and also to comb his hair. He responds to "Baby choke!" with a little sound like a cough.

He plays "Pat-a-cake" with or without suggestion.

His first phrase, "Nice kitty", markedly shows Nancy's inflection.

Twenty-fourth day. He pretends to eat, using an old bell as a bowl, and a real spoon or any toy in the least degree resembling a spoon.

This is done repeatedly, with evident enjoyment.

He "blows a horn" with a spool or the bathroom spray-hose or anything that remotely resembles a horn. Mary Ellen has a toy horn, so he is familiar with its use.

He imitates Nancy when she puts out her tongue or sucks in her cheeks.

Twelfth month. Twenty-eighth day. He can purse his lips in a whistling position.

Thirteenth month. Eighteenth day. Nancy was taking some garments out of a pail and spreading them on the grass to bleach. John picked one up and replaced it in the pail. He had often seen her do this.

He loves to smell flowers. He exaggerates the sniffing which he has seen others do, wrinkling his nose and sometimes his whole face.

Sixteenth month. Twenty-third day. He can whistle softly.

Seventeenth month. Sixteenth day. He plays "Here's a Ball for Baby" from Miss Poullson's "Nursery Finger Plays."

Twenty-first month. Thirteenth day. He went with Aaron and the whole family to see the college barns full of cows and sheep. He knows what they say now, and makes a different cry for the full-grown sheep and the baby lambs.

Twenty-second month. Third day. He sat in a small chair with a doll in his arms, rocking and singing "Bye-bye."

ASSOCIATION

Fourth month. Twenty-eighth day. John pulls at his mother's dress to hurry nursing. (This observation and several others included in the present section might perhaps be more appropriately classified as belonging to the "Memory" group. The present arrangement has been adhered to in order to offer as many types of experiences as possible, as a basis for intelligent child-study.)

Sixth month. Second day. He reached for a spoon and tried to put it in his mouth. Presumably he associates the spoon in the mouth as an agreeable sensation, having taken orange juice in this way.

Seventh month. Twelfth day. Several noise-making activities were noticed, as the knocking of his bottle against the bars of his crib, and dropping the talcum box again and again.

Ninth month. Sixth day. For the first time he was observed consciously to pinch his rubber doll to make it squeak. He often uses the word "Da-da," and always watches his father when he is in the room, and follows with his eyes when he leaves. His mother has been trying to teach him to apply the name to the person. Apparently no connection has as yet been set up between the two.

Tenth month. First day. He has learned the meaning of "No, no." The first evidence occurred when his father had put a pile of magazines on the floor, and told him not to touch by using these words. The child drew his hands back.

Eleventh month. Tenth day. He calls the stuffed toy cat and the rubber one "Titty," as well as the live one.

Thirteenth month. Seventh day. Aaron is out of town. The child's mother said, "Where's Daddy?" John said, "Ba, ba," and waved his hand.

Eighteenth day. John saw a clock across the room, said "Tick, tick!" and walked rapidly to get it.

Fourteenth month. Fourteenth day. When he is taken into Nancy's room in the early morning, she allows him to play with her alarm clock. Later in the day, when he passes her closed door, he says "Tick, tick," showing that the clock experience is his most vivid remembrance in connection with the room. Again, he uses the same expression on hearing another clock ring in an entirely different place.

He has been taught the meaning of "hot." He says it whenever he has occasion to touch the faucets in the bathroom, or when he goes near the range or the coal-oil stove, or comes near the electric grill. He knows the word "dinner," and says it. Four days ago, when his mother

had finished his bath and was washing her hands, she said, "Now we'll go find Johnnie's dinner." Like a flash he was at the top of the stairs, got a false start, and fell to the bottom. A bad bump on his forehead, another on his eye, and a tiny corner broken off one of his beautiful teeth, were the most serious damages.

Nineteenth month. Fifteenth day. He came into the living-room where "Daddy" was playing the piano in the dark. He reached up his hand to the light button, said "Um" in his usual way, and then "Light."

Twentieth day. While looking at a catalogue, he came to a page of watches and said "Tick, tick!" This is the first instance of his identifying pictures that can be vouched for as original.

Twenty-second month. Twenty-fifth day. John saw a bed illustrated in a catalogue. Mary Ellen said, "Lie down on the bed," and John put his head on the page. The next minute we saw him sitting on it, for he had found a chair.

He found a train picture, and said "too-oo-oo!" This indicates a decided advance in his thinking.

When we say to him, "Where is Mr. Holobaugh?" (mail-carrier), he answers, "Lettersh."

Twenty-fourth month. Fourth day. When he was being dressed to go out on a warm day, he volunteered "No mittens 'day, no 'ubbersh 'day."

MEMORY



Third month. Thirtieth day. John got the foot of his knitted doll in his mouth, sucked it, and showed disappointment at finding no milk.

Fourth month. Sixth day. When he is about through nursing, he will look around as if for the bottle which always follows. When his mother shakes the bottle to cool it, he follows the movement with his eye, and refuses to finish the nursing.

Eighth month. Twenty-third day. After his teething sickness, which kept him upstairs for a week, he was delighted to come down and sit in his buggy in the kitchen, and to play in the "kiddie-coop." He gave every indication of remembering his former experiences. He has not forgotten how to "stand up," as the children call his gymnastics on the floor. He stiffens his arms and legs, and moves about on all-fours.

Tenth month. Seventeenth day. He knows his mother. He crawls to her when she comes into the room, and puts a hand on her dress.

Eleventh month. Eighth day. While going up to bed, he played with the shadow his hands made in the sunlight on the wall. The next night he discovered the same rays, repeated his play, and seemed to recognize the experience in a way very charming to see.

Eighteenth month. Sixteenth day. He filled a toy cup with water, and spilled it on the bathroom floor. His mother said, "Naughty baby!" Immediately, and without suggestion, he went into the nursery, brought one of Mary Ellen's doll dresses, and wiped up the water.

Sometimes when he is being dressed, he asks to play "Here's a Ball for Baby," by making the cradle or the umbrella with his hands.

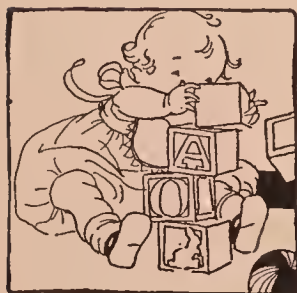
Twenty-first month. Eighteenth day. Some months ago, he was shown how to hold a conch-shell to his ear and listen. To-day he was seen holding a round box to his ear, in the identical attitude, giving every appearance of intent listening.

Twenty-second month. Twentieth day. He brought the toy dog "Pat" to show his mother, with the red felt doll's cap on its head. His mother said, "Funny doggy!" The child thought a minute, said "Funny kitty," and went into the nursery. He came back bringing the stuffed cat "Paddy" wearing the cap.

Twenty-fourth month. Fourth day. He says "Take-it hand," when going down the stairs. We are wondering whether this caution is the product of his fall.

He knows the mail carrier, egg man, milk dealer and other household purveyors all by name, and goes through the list without an error. When he is asked, "What does Mr. Holobaugh bring us?" he answers, "Letters," "What does Mr. Harvey bring us?" "Bread." "Who brings us the eggs?" "Mr. Royer," etc.

IMAGINATION



Imagination in the two children who are the subjects of this record developed rapidly after the second year, but up to the close of this period only a few instances were noted. Several of these have already been cited under different headings, as for instance, when John pretended to eat out of an old bell, used an empty spoon for a horn, or played "Flying Birds."

Twenty-second month. Twenty-first day. John built some stairs with blocks, and said, "Stairs, stairs!" Then he made a motion with his leg, like climbing stairs. This is the first instance that has been observed when he has made a thing and named it intelligently.

Twenty-fifth day. He rode astride a big stick and said "Horse!" He was prancing about on all-fours, and his mother patted his head and said, "Nice doggy." He played "Dog" for a few minutes. This is the first impersonation that has been noticed.

He was playing with the little iron elephant, and his mother said, "Give Jumbo some peanuts." He pretended to do so, repeating several times.

Twenty-fourth month. Tenth day. Elizabeth climbed into the wagon, saying, "Can I get in wanging, mama? T'ain coming, Too, too! Ding, dong!"

PLAY

The few instances of imaginative play which were observed during the first two years of the lives of the children John and Elizabeth have been already recorded in the preceding section. The present section concerns itself principally with their spontaneous choices of play materials.

First month. Twenty-eighth day. John fingered part of his carriage.

Seventh month. Eleventh day. He romped with M. E. on her bed.

He handled a closed safety-pin, which seems to be a favorite toy. Also he played with rubber cat, rattle, talcum box, swan (bath toy), and cork. His method is mostly handling, sometimes shaking.

He tried to get a pencil, but was not allowed to have it.

Fifteenth day. He played with a mirror, cough-drop box, milk-bottle top, teddy-bear, rattle.

Twentieth day. He played with a ball, rattle and a teething-ring.

He toyed with the buttons on his mother's dress.

Twenty-sixth day. He likes best to have his whole box of toys, and is happy with them for hours at a time. The box contains two rubber dolls, knit doll (Ducky Daddles), two celluloid rattles, swan (bath toy), rubber cat, tobacco-can rattle (made by Mary Ellen) and a spoon.

Eighth month. Sixth day. He played hide-and-seek very prettily with Nellie, hiding behind his carriage-top and peeping out to hear her say "Boo!" He is very merry, and plays all his games with relish. He laughs a good deal, and crows.

Eleventh day. He beat with a spoon on a pan lid.

Twelfth day. He chased his shadow on the bed.

Tenth month. First day. He likes "daddy's" keys.

He likes to tear paper, also to eat it.

Twenty-sixth day. The drawer of aprons in the kitchen amused him to-day.

He pulled them all out, and scattered them on the floor.

Eleventh month. Fourth day. He likes to have two cups, one smaller than the

other, and to attempt to put one into the other. He does not succeed, but tries and tries.

Twenty-third day. He shows a taste for machinery. The treadle of mother's sewing-machine, and "daddy's" revolving book case are beginning to be fascinating.

He put empty spools on top of blocks.

He enjoyed beating his two tin cups together.

Twentieth day. A game which afforded much enjoyment consisted in rolling a vaseline jar down a big pillow. Again and again he put it up and watched it roll down, with eagerness and delight.

He likes to hold a dandelion or other flower, also to eat it.

Twelfth month. Twenty-eighth day. He is more enthusiastic than ever about the sewing-machine. Also he is intensely interested in the revolving spray which is attached to the garden hose, a hammer, the revolving book-case, a covered pail, the cupboard where pots and pans are kept.

Thirteenth month. Sixteenth day. He played in quite the orthodox way with an iron train-car, making the wheels go around.

Eighteenth day. He allows preference for a broom, carpet sweeper, rake, hoe, hose-carriage. He can hardly be kept away from the lawn mower and the sewing-machine, particularly when they are in use.

Twenty-third day. Elizabeth's favorite toys are any small things that she can take out of a box and scatter, such as buttons, acorns, tin dishes.

Fourteenth month. Fourteenth day. John loves books, catalogues, boxes of letters, a little blank diary. He has a taste for all kinds of machinery. We are afraid that he has put the letter scales out of order.

Seventeenth month. Fourteenth day. He plays with buttons or any small objects with absorption. Buckeyes, scissors and pins are favorites. He does not try to cut with the scissors; indeed, this function of scissors has no meaning for him. His occupation with the pins is sticking them in a cushion.

He still finds books fascinating, and the presence or absence of pictures seems to make no difference.

He can drag Mary Ellen's train across the floor with a string.

Nineteenth month. Twentieth day. He does not care for the "kiddie-car." He is very fond of a set of colored chips. Best of all is any kind of a book. The twenty-second month witnessed the first imaginative play. Several illustrations of this have been cited in the preceding section. It is of more than passing interest to note that the imaginative impulse was not developed in the child Elizabeth until two months later, although by the be-

ginning of the third year her richness of imagery and originality were quite as fully developed as in the case of her brother.

Twenty-third month. Fifth day. Elizabeth likes her dolly at last. She has never cared for her before. She loves the white kitten, as all children do.

Twenty-fourth month. Third day. Both John and Elizabeth play "kitty" nearly all the time. They ask for milk in a saucer on the floor, and the house is full of their mewings and purrings.

Both delight in looking at books, especially the family post-card collections. Elizabeth takes out pictures with a will, unless forcibly prevented.

Fourth day. John escapes at every opportunity to play in the sandpile next door.

Eleventh day. Elizabeth put "Teddy" (bear) in the little wagon, saying, "Teddy wants a ride."

She put "Fanny" (doll) on her pillow, saying, "Go sleep, Dolly."

DEVELOPMENT OF LANGUAGE

Seventh month. Fifteenth day. John called Mary Ellen to assist in his bath. His meaning was unmistakable. She had been playing with him, when mother picked him up and carried him into the bathroom, and she went into the nursery. He stretched out his arms towards the door and said, "Uh dah!" several times. When she came, he was all smiles.

Eighth month. Second day. He looks up in response to "Johnnie!"

Ninth month. Second day. He understands "No, no!" An account of the first definite proof of this has been given above, in the section called "Association."

Tenth month. Twenty-sixth day. His first word was "Titty" (kitty).

Eleventh month. Fifth day. He responds to "Give me a bite of cracker."

Sixteenth day. His first phrase was "Nice kitty."

Twenty-fourth day. He says "Where's Johnny?"

Twenty-ninth day. "Tick, tick."

Twelfth month. Seventh day. The child's father is out of town. His mother said to him, "Where's daddy?" The child said "ba ba" (bye-bye), and waved his hand. The preceding illustration and several of the others to follow have been already mentioned in other connections. The repetition has been thought desirable for the sake of continuity.

Thirteenth month. Eighteenth day. John took two pieces of soap from the washboard, and left them on the floor. His mother pointed to one, and said, "Pick it up." He did so. She said, "Now put it back," indicating

the board. He obeyed. The process was repeated with the second piece. The same lesson was given with pea-pods; while mother shelled peas, he had a great time scattering them over the floor, and afterwards, when she said, "Give it to mother," he brought two, one at a time. He had a bad habit of taking the pin out of the screen hinge. His mother tried to teach him not to touch it by repeated "No, no's." Finally she put him in the coop, where it was out of reach. The same difficulty was encountered with the sewing-machine band. He would not keep his hands away, and had to be put in his crib. He wept bitterly, but the next day he was at it again.

Twentieth day. He says "Tick, tick," when he sees a clock, and "Chick, chick," when he sees chickens. The two words are very similar.

Fourteenth month. Fourteenth day. He knows "Hot," and uses it, very often leaving off the "h."

He knows "Dinner," and says it.

Eighteenth month. Sixteenth day. He looks out of the window at night, and says "All dark!" He pulls the curtains aside, and is very serious about it.

Nineteenth month. Fifteenth day. He reached his hand up to the electric light button, said "Um," and then "Light."

He asked for his milk bottle, saying "Bottie."

Twentieth day. His vocabulary:

Daddy	'bye	thank you
Mama	hot	all dark
Sister	cold	all gone
baby	light	chicken
Nellie	please	tick tick
book		kitty

Sounds for dog, bear, whistle.

Twenty-fourth day. When he poured out his milk again and again, on purpose, Nancy said: "Go stand in the corner." He ran crying, and stayed until she said, "Come back."

Twenty-first month. Eleventh day. He saw a picture of storks or wild geese flying and said his chicken sound, like "Cut, cut."

He begins to make sentences. He brought out the silver fruit dish, and his mother said, "Pretty, pretty." He carried it around, repeating "Pretty!" Then his mother said "Put it away." He obeyed, and then said, "All gone, pretty."

Twenty-second month. Eleventh day. He built stairs with blocks, and named them, saying "Stairs, stairs."

Twenty-fifth day. "Funny kitty!" (stuffed cat wearing doll's cap).

"Horse" (riding a stick).

He asks for a pencil by saying "Write!"

He turns the pages of a catalogue, and finds various objects which he recognizes and names, as "Daddy," "Nennie," "ubbersh," "tick ticks," and so on.

Twenty-third month. Eleventh day. Elizabeth's expressions: "Kufing" (excuse me), "Un doing?" (what are you doing?), "Go bye-bye, daddy, 'n car" (go for a ride with daddy in the car), "Make a mu'ik" (make some music).

Fifteenth day. Elizabeth: "Can I go get it my t'ain, mama?" (train).

"T'ank you."

"I got a t'ain, sitter." (sister).

"See kitty, mama, run away fast."

Twenty-sixth day. While trying to put on a refractory shoe: "Naughty shoe!"

Twenty-fourth month. Fourth day. John volunteers remarks:

"Daddy gone down-town."

"Drop-it rattle baby."

"Gone, gone, tummy" (when his shirt was put on).

He saw himself in a hand-mirror. He turned it over and said: "Where boy gone?" Then he turned it glass side uppermost again, and said, "Boy down there mirror."

He was on the porch to-day with the gate locked, and called loudly, "Mutter! Mutter! Come get it ball!" His ball had rolled to the grass outside.

He always wants to go out the back door, but he calls it "front door."

He volunteered, "No mittens 'day, no 'ubbersh 'day," when being dressed to go out on a warm day.

He says "Kick-it ball," and calls a handkerchief "hankit."

Eighth day. He was looking at pictures, and said: "Little boy goin' dain down again. Little boy, get up here!" A man at the door asked Elizabeth where her mother was. She replied with a record-breaking sentence—"I don't know. I think she's up-stairs washing Johnny's face and hands."

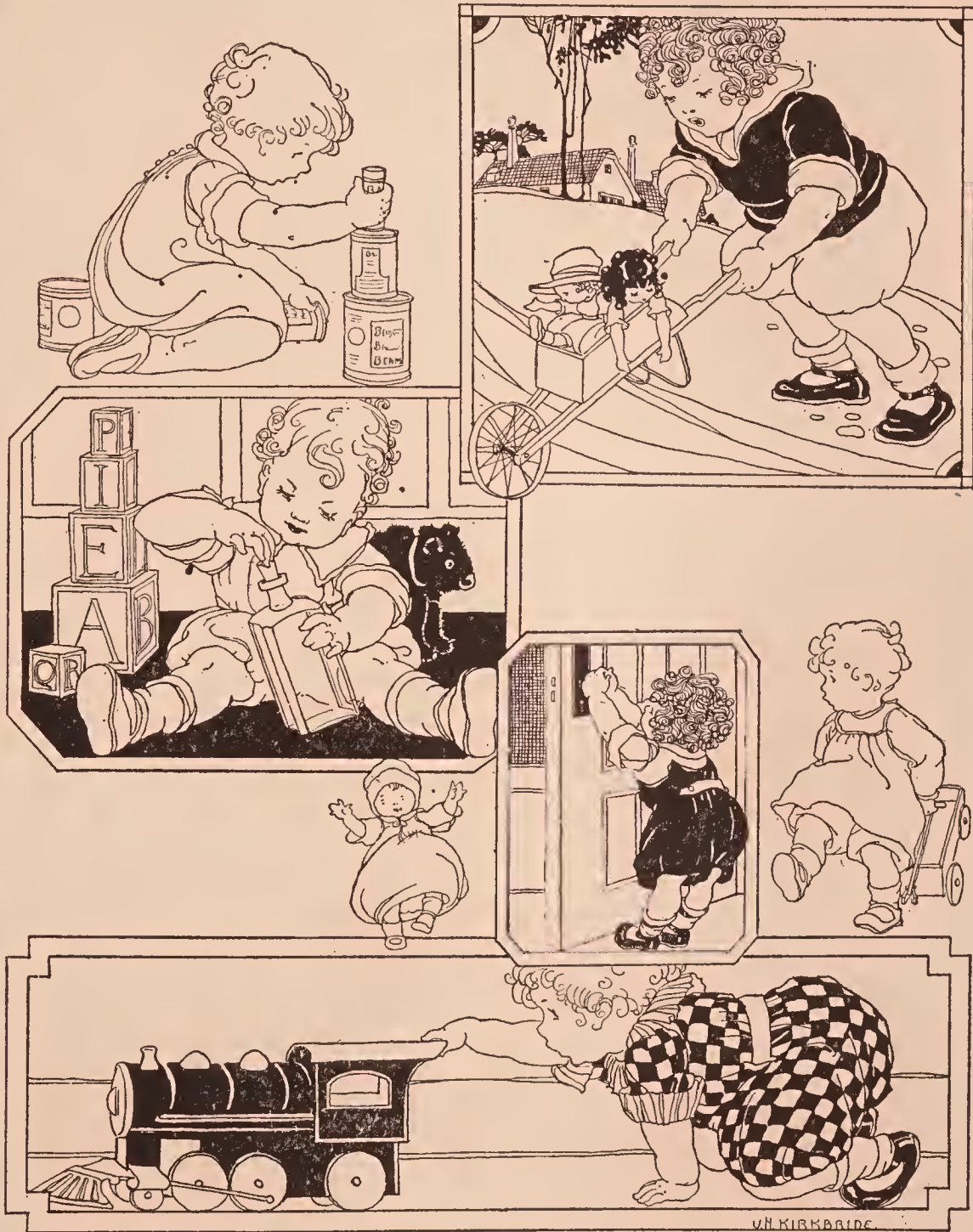


The Child's Gymnasium

FROM 3 MONTHS TO 2 YEARS



The baby's business now is to develop his legs, his arms and his back muscles. He has work to do in getting his eyes and hands to work together, to make his feet and eyes coördinate and various other parts of his body to work together for his service. Pushing his feet against resisting hands makes his leg muscles stronger.



Lifting heavy things develops arms, legs and back muscles. Pushing heavy toys encourages exercise of the big muscles. Floor plays with big toys are important for him at this time. A bottle and cork presents a real problem in hand and eye coördination.

HEIGHT WEIGHT TABLES FOR INFANTS

Based on data compiled by R. M. Woodbury for the Children's Bureau, U. S.

Department of Labor. The figures for the new born are

based on data gathered by R. E. Scammon.

Arranged by C. R. Bardeen, M. D.

BOYS

Mean weight at a given age and stature														
Stature	Birth	1 mo.	2 mo.	3 mo.	4 mo.	5 mo.	6 mo.	7 mo.	8 mo.	9 mo.	10mo.	11mo.	12mo.	15mo.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
18	6.0													
18.5	6.3													
19	6.7	7.5												
19.5	7.0	7.9												
20	7.4	8.4												
20.5	7.8	8.8	9.3											
21	8.2	9.2	9.8											
21.5	8.6	9.7	10.3	10.6										
22	9.0	10.1	10.7	11.1										
22.5	9.4	10.6	11.2	11.6	11.9									
23	9.8	11.0	11.7	12.2	12.5	12.7								
23.5		11.5	12.3	12.7	13.0	13.3	13.6							
24		12.0	12.8	13.2	13.6	13.9	14.2	14.4						
24.5			13.3	13.8	14.2	14.5	14.7	14.9	15.1					
25			13.8	14.4	14.8	15.1	15.3	15.5	15.7	15.9				
25.5				15.0	15.4	15.7	15.9	16.1	16.3	16.5	16.6			
26				15.5	16.0	16.3	16.5	16.7	16.8	17.0	17.2	17.3	17.4	
26.5					16.6	16.9	17.1	17.3	17.4	17.6	17.7	17.9	17.9	18.0
27					17.2	17.6	17.7	17.9	18.0	18.2	18.3	18.4	18.5	18.5
27.5						18.2	18.3	18.5	18.6	18.7	18.9	19.0	19.0	19.1
28						18.9	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7
28.5							19.7	19.7	19.8	19.9	20.0	20.1	20.2	20.2
29							20.3	20.4	20.4	20.5	20.6	20.7	20.7	20.8
29.5								21.0	21.1	21.1	21.2	21.3	21.3	21.4
30								21.6	21.7	21.7	21.8	21.8	21.9	22.0
30.5									22.3	22.3	22.4	22.4	22.4	22.6
31									23.0	23.0	23.0	23.0	23.1	23.2
31.5										23.6	23.6	23.6	23.7	23.8
32												24.1	24.2	24.3
32.5												24.7	24.8	24.9
33													25.3	25.5
33.5														26.1
34														26.7

Note. The numbers in heavy type indicate the mean height and mean weight for a given age. About 50 per cent of all female infants of the given age come within an inch above or below the mean stature and within 10 per cent above or below the mean weight. The numbers in italics in each column indicate approximately the range within which 50 per cent of infants come. For a given stature and age the weight of 50 per cent of the infants comes within about 7 per cent of the weight in the table.

HEIGHT WEIGHT TABLES FOR INFANTS

Based on data compiled by R. M. Woodbury for the Children's Bureau, U. S.

Department of Labor. The figures for the new born are

based on data gathered by R. E. Scammon.

Arranged by C. R. Bardeen, M. D.

G I R L S

Mean weight at a given age and stature

Stature	Birth	1 mo.	2 mo.	3 mo.	4 mo.	5 mo.	6 mo.	7 mo.	8 mo.	9 mo.	10mo.	11mo.	12mo.	15mo.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
18	6.0													
18.5	6.3													
19	6.7	7.4												
19.5	7.0	7.8												
20	7.4	8.2	8.6											
20.5	7.8	8.6	9.1	9.4										
21	8.2	9.0	9.5	9.8										
21.5	8.6	9.5	10.0	10.3	10.6									
22	9.0	9.9	10.5	10.8	11.1	11.4								
22.5	9.4	10.4	10.9	11.3	11.6	12.0								
23	9.8	10.8	11.4	11.8	12.1	12.5	12.7							
23.5		11.3	11.9	12.3	12.6	13.0	13.2	13.6						
24		11.8	12.4	12.8	13.2	13.6	13.7	14.1	14.3					
22.5			13.0	13.4	13.7	14.1	14.3	14.6	14.8	14.9				
25			13.5	13.9	14.3	14.7	14.8	15.2	15.3	15.4	15.6			
25.5				14.5	14.9	15.3	15.4	15.7	15.9	16.0	16.1	16.3		
26				15.1	15.5	15.9	16.0	16.3	16.4	16.5	16.7	16.8	16.9	
26.5					16.1	16.5	16.6	16.8	16.9	17.1	17.2	17.3	17.4	17.4
27					16.7	17.1	17.2	17.4	17.5	17.6	17.8	17.9	18.0	18.0
27.5						17.7	17.8	18.0	18.1	18.2	18.4	18.5	18.6	18.6
28						18.3	18.4	18.5	18.6	18.8	18.9	19.0	19.1	19.1
28.5							19.0	19.1	19.2	19.4	19.5	19.6	19.7	19.7
29								19.7	19.8	19.9	20.1	20.1	20.2	20.7
29.5									20.3	20.3	20.5	20.7	20.7	20.8
30										20.9	21.1	21.3	21.3	21.3
30.5											21.5	21.7	21.9	21.8
31												22.3	22.5	22.4
31.5													22.9	22.9
32														23.5
32.5														23.5
33														24.1
33.5														24.6
34														25.2
														25.7

Note. Perfectly healthy children of different types at any given age frequently vary in height. To attempt to bring the weight of a short five-year-old up to that of a tall five-year-old might result in bringing about physical disorders. Modern doctors are inclined to judge the child's weight by his height rather than by his age, to avoid this. These tables consequently state weight in relation to height and not to age.

**HEIGHT WEIGHT TABLE: 15 MONTHS TO 6 YEARS
BOYS**

Stature	Normal Weight	7% Weight	20% Over weight
30	22	20.5	26.4
31	23.2	21.6	27.9
32	24.5	22.8	29.4
33	25.7	23.9	30.8
34	27.1	25.2	32.5
35	28.4	26.5	34
36	29.7	27.7	35.6
37	31.1	29	37.3
38	32.5	30.3	39
39	33.8	31.5	40.5
40	35.2	32.8	42.2
41	36.8	34.3	44.1
42	38.4	35.8	46
43	40.1	37.3	48.1
44	41.7	38.8	49.7
45	43.5	40.5	52.1
46	45.4	42.4	54.4
47	47.2	43.9	56.6

**HEIGHT WEIGHT TABLE: 15 MONTHS TO 6 YEARS
GIRLS**

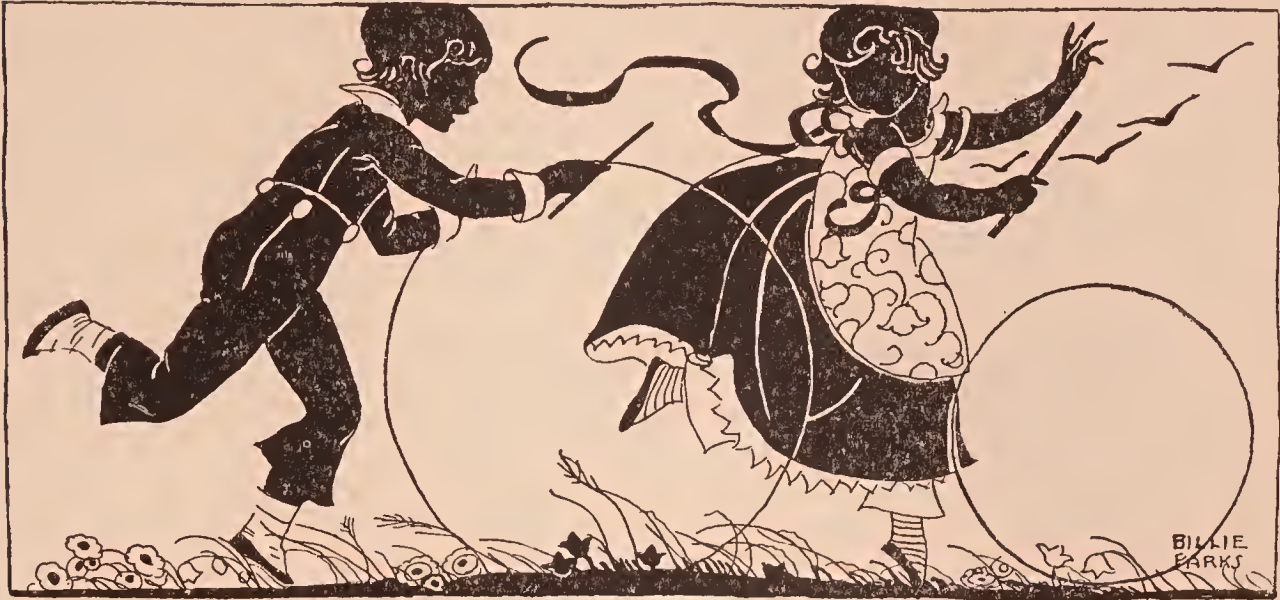
Stature	Normal Weight	7% Under weight	20% Over weight
30	21.2	19.8	25.4
31	22.6	21.1	27.1
32	23.7	22.1	28.4
33	25	23.4	30
34	26.4	24.6	31.8
35	27.7	25.8	33.2
36	29.1	27.1	34.9
37	30.4	28.3	36.4
38	31.7	29.5	38
39	33	30.7	39.6
40	34.5	32.1	41.4
41	36	33.5	43.2
42	37.5	35.1	45
43	39.2	36.5	47
44	41	38.2	49.2
45	42.7	39.8	51.2
46	45	41.9	54
47	46.8	43.6	56.1

Note. Perfectly healthy children of different types at any given age frequently vary in height. To attempt to bring the weight of a short five-year-old up to that of a tall five-year-old might result in bringing about physical disorders. Modern doctors are inclined to judge the child's weight by his height rather than by his age, to avoid this. These tables consequently state weight in relation to height and not to age.



VH KIRKERIDE

Early Childhood.



A Few Suggestions About the Beginning of This Period

THE child is likely now to challenge the mother's authority even where certain controls have been established. He is finding out that he is an individual, and will try in all sorts of ways to see how far he can set his will against that of others. Direct opposition may often bring trouble. Control through indirect ways will bring best results. The use of terms of encouragements and praise, or suggestions to do other things which appear attractive will usually divert the mind from the matter of contest. John had been contrary and troublesome. His mother, at her wit's end, instead of scolding, went quietly to the window, threw it up, and called John to see the funny dog running along the street. A few breaths of fresh air, a new interest, and John's state of mind was entirely changed. Again, his discovery of himself as capable of satisfying his own desire will lead to all sorts of attempts to get forbidden foods and objects, as much for the joy of succeeding as for using them.

Eating. He will attempt to eat between meals, a habit which must not be permitted. The remedy is to deny him some pleasure for each offense. Be sure to give him at meal time any candy, cookie, or cracker which kind friends give him between meals. When he knows that it is really his own, that no one else will eat it, he will usually be willing to save such treats until meal time.

Miss Parsons' articles on feeding* tells what to select, and why such selections should be made. Now comes the real difficulty, where too often mothers give up, how to make the child eat. Perhaps there is as much discipline of the

*Turn to the feeding score in the next section; it applies here as well. It might be copied, to hang in the kitchen as a guide for the family's food, as well.

parent as of the child in these situations. The mother who allows herself to be defeated in these early contests with the little child can hardly hope to hold her own when vital questions arise over parental control in the 'teens.

1. Food must be palatably cooked and well seasoned. Unpalatable food is inexcusable for child or adult.

2. It should be served attractively. Where there is any difficulty in getting the child to eat, special pains should be taken to garnish dishes; a dish of spinach may look pretty with a little grated raw carrot on it, or a daisy of sliced white of hard-boiled egg with yolk center. Funny little raisin men or faces made with raisins on the cereal in the dish may be among the many other things the ingenious mother can devise.

3. Eating from a dish with bunny picture in the bottom often helps. The poor bunny doesn't like to be covered up. Eat him free from his covers.

4. Serve small helpings at a time. They give courage where the large plateful carries dismay. Also, when a child eats two small helpings he feels he has really achieved something.

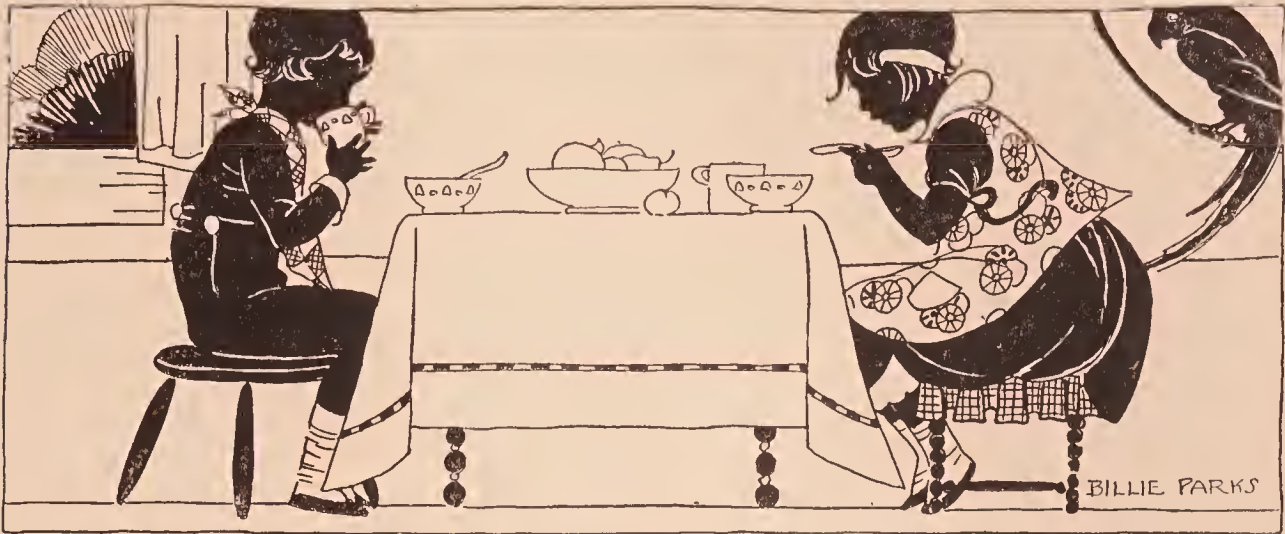
5. Change the ways in which vegetables are served. A thoroughly-cooked cream sauce on carrots and spinach or other vegetables adds variety; for spinach it removes some of the strong taste and makes it more palatable.

6. Some few children have acquired the notion, usually from what adults say, that unattractive food won't stay down. Children regurgitate easily, and so fool themselves and their mothers. If there is no doctor's reason why a necessary food does not stay down, the mother must hold control in the matter. In a kindly way she may say, "Well, never mind, if that doesn't stay down, here's another dish. I have plenty more, and we'll keep trying until one does stay."

7. Always give important foods and less filling one's first. Children can fill up with bread and butter, milk and dessert, later. Don't fill the stomach so full of milk and water that there isn't room for other food.

8. If any one special food, like spinach, is the cause of trouble, give it first, and say that when that is gone the dinner will follow. If necessary to do so, follow out your words to the letter; let him go without a thing to eat, and he will learn the lesson. It is bad to miss a meal, but in this case the permanent good must be chosen. It will probably never need to be repeated.

9. *Games as Devices.* Frequently children learn to like a dish after eating a fair amount of it. Here are some devices one mother used: Alfred was not in the habit of drinking enough milk. His mother gave a small glassful to him and a large one to his sister. Alfred felt slighted and complained. "Well, you know you aren't as good a drinker as Mary, and I don't want to waste the milk." An argument followed between the children, and Alfred, to prove his



ability, drank it all. Mother said, "Yes, that's fine, but a big glass has a great deal more, and you couldn't drink it all," and so on, until a pint of milk had been consumed. The fun of this game brought demands for a repetition for several days. Alfred's improved condition brought a better appetite, and the milk question was solved. Another mother, using a small glass, pretended that Kate had not taken her milk, but had poured it down her dress. Mother looked, but couldn't find it. She gave Kate some more and turned her back. In a short time Kate sang out joyfully, "That's all gone." Another search for milk possibly spilled on the floor or in the chair followed, while Kate chortled and asked for more. She often asked to play this game.

Mr. Lewis taught Emma to enjoy carrots. He used a spoon for a fishing rod, baited with carrots. While he was not looking, a "fish" took them all away.

10. To praise children who eat well and appeal to the others to emulate them sometimes results well.

Indirect Ways of Creating an Appetite. There are indirect ways of increasing appetite where it is lacking:

One is giving the juice of an orange several times a day, or some strained tomato juice. This is done in many hospitals. The vitamins contained in these juices stimulate the desire to eat.

Plenty of out-door exercise and fresh air in the room at night.

A little body well cleaned out.

A properly-balanced diet.

Prevent fatigue, oversensitiveness to adult's opinions and nervous strain. These cause loss of appetite.

Children are often so sensitive to the adult's opinion of them that an over-desire not to make mistakes and to please causes strain and loss of appetite.

Embarrassment caused by nagging about manners or care of clothes may cause it. Respiratory blockage, such as adenoids and enlarged tonsils, which cut off the supply of oxygen, may be the cause of lack of appetite.

Every child should have a good appetite. See that he has it.

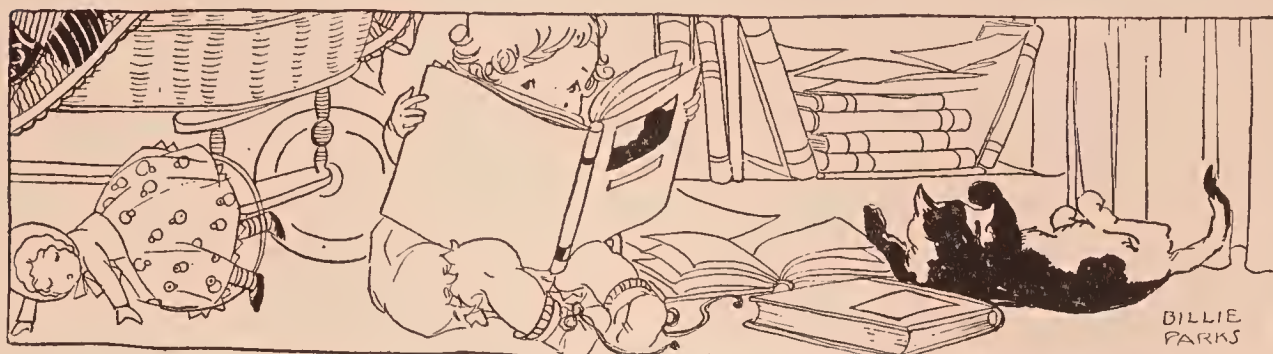
How Opinions of Foods are Often Formed. Likes and dislikes are often matters of imitation. The baby adores his father or big brother. If father finds fault with the food set before him, or makes any comments about it, little son is quite likely to imitate him. Little Mary, who hears her mother say, "Well, I don't blame her; I never could like carrots," is going to do her best to be like mother. It is often not only the problem of controlling little Mary, but her father and brothers and sisters.

Control of the baby often necessitates educating other members of the family as well, but it seems to be a terrible mistake for any mother to succumb to these difficulties. The little brother or sister in the family, to be loved and cared for, is the best opportunity the mother can have of helping to educate her other children in the duties of parenthood. Here is her chance, by taking the others into her confidence, explaining the whys and wherefores of feeding, sleep, of the hurt in showing off little Mary or in teasing Johnny. In her attempt to help her baby, she will at the same time be developing serious thought and a sense of responsibility in these future parents.

Training in Table Manners. As Miss Edwards says, "The child should be gaining control over certain table manners." Among the most important are the following. He should—

1. Take small bits and spoonfuls.
2. Not crumble bread on the tablecloth.
3. Not spill his food.
4. Not grab or reach for food.
5. Wipe his mouth after drinking milk, and at end of the meal.
6. Say "No, thank you," and "Yes, please," when asked to have food.
7. Eat all that is set before him.
8. Have his silver on the plate, and spoon in the saucer.





*Development from Two to Four Years**

MENTAL DEVELOPMENT

1. *Attention.* Still of a flitting nature; greatest concentration in doing, that is, doing that involves rather large, clumsy muscular movements, e. g., Robert upsetting contents of box on the floor and then replacing; banging door.
2. *Perception.* Begins to recognize things by their characteristics, such as hard or soft, animate or inanimate. Vaguely realizes his membership in the family.
3. *Curiosity.* Insatiable. A state of investigation, but not minute investigation that comes later. Experimentation. Dawning curiosity about names, and about animals and things.
4. *Imitation.* (a) Great age of imitation, but (b) the beginning of independent acts, as (a) Robert putting his cup and plate away as the other children did, but (b) putting his lunch in his pocket, while others put theirs in lockers.
5. *Memory.* Child remembers faces and objects. Good incidental memory of experiences may remain in memory for years.
 - (1) Robert cries at unfamiliar faces and runs to greet familiar ones.
 - (2) Goes straight to fetch his own bowl because he fetched it yesterday.
 - (3) Child's experience of nearly being run over remembered years after, but unless repeated Robert would forget it probably in a week or two.
6. *Imagination.* Probably developing, but there is nothing tangible to prove just how far this goes.
7. *Reasoning.* Reasoning power certainly developing, but difficult to prove how much: e. g., child wishing to go out of the locked door takes key off the cabinet, fits it properly into keyhole and tries to turn it.

*From a report made on the child from two to four by a committee in the Kindergarten and Lower Primary Department, Teachers' College. By permission of Miss Hill.

8. *Language.* (Discussed in Miss Edwards' article). Child should be able to form words, and there is a beginning of the sentence, with a tendency to leave out words and prepositions, but by the end of the year he should be forming complete sentences; e. g., (1) Robert said, "Pitcher quite full," also "Pour it out." Child generally puts name instead of pronouns but with increasing tendency to substitute pronouns. (2) Child said, "Dorothy bad girl." (3) Child little more advanced said, "I got no more sick," "Daddy coming home in the rain." Children often find difficulty in pronouncing names, as "Dotty" for Dorothy, but persevere with increasing success if adults speak to them as they would to their equals.

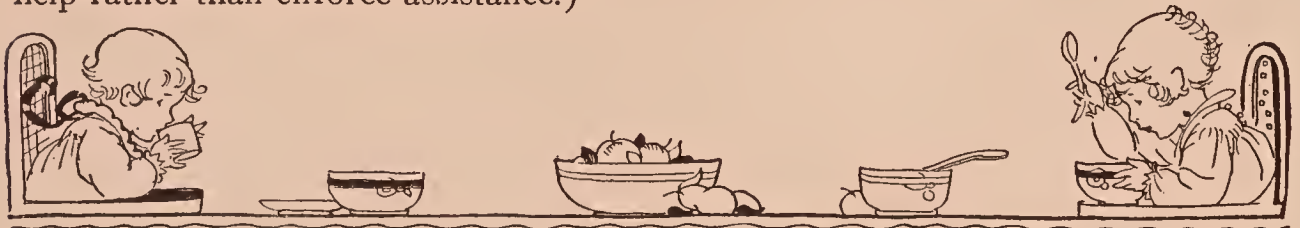
There are marked changes between two and a half and three and a half, so an added chart is put in this section.

Habits which may be established by lists and score cards:

Table manners.

Dressing in the morning.

Household duties, such as picking up playthings, hanging up clothes, and making the bed. (These should not be enforced by authority, but asked to be done as a help to mother or whoever must pay for his neglect. Enlist his willing help rather than enforce assistance.)



FOOD FOR THE PERIOD OF TWO TO FOUR YEARS A SAMPLE DIET*

Breakfast:

Cereals, toast or bread, one cup of milk or more, crisp bacon or soft-boiled egg; sometimes prunes or apple sauce.

Dinner:

Potato, vegetables, meat, (about 1½ square-inch piece), fruits; no milk.

Supper:

Cereal, at least one cup of milk, bread, simple desserts, such as custards or tapioca.

A little candy of good quality does not harm, if given after meals. Fried

*Others can easily be made from Miss Parsons' Food Score, given in the next section.



foods should *never* be given at these ages. Tea and coffee have *no* place in a child's diet, and, of course, rich pastries and desserts should not be given. Eggs should be served in small amounts, and not given every day at first, for they sometimes cause hives and other skin troubles.

ACHIEVEMENTS OF THE CHILD OF TWO

*Achievements.** The child of two should possess various accomplishments, such as the following: He—

1. Walks and runs steadily.
2. Coordinates large muscular movements.
3. Has regular physical habits.
4. Obeys simple orders.
5. Sits up in a chair and feeds himself correctly.
6. Has certain orderly habits, such as putting away toys and clothes.
7. Makes himself understood and begins to use simple sentences.
8. Understands and voluntarily follows simple directions where obedience is not absolutely necessary; e. g., "Would you like to help me? We have to put out all the plates and napkins."
9. Responds to simple rhythms.

*By permission of Patty Smith Hill.

DEVELOPMENT OF THE THREE-YEAR-OLD*

Physical Development. The eye is not yet fully developed; although a child of three can focus and see small things better than a child of two, he is not in any way ready to work with fine things.

He should have all his first teeth at two and a half.

The child of three should have good coördination in running, jumping and leaping. Sleep and food should be much the same as that for the two-year-old.

Activities. The two-year-old child is at the stage of sensory achievement and learning; at three still largely so, but not entirely.

The child of three has a very good coördination of the larger muscular movements and is beginning to coördinate in some of the finer movements.

There is a great advance over the two-year-old. Example: Where the two-year-old is mainly engaged in banging, dropping, knocking over, etc., the three-year-old will lace his shoes and button his coat.

Intellectual. There is increasing coördination of legs, arms, eyes, hands. Flitting is still evident, but there is greater and greater concentration; e. g., in place of merely random movements concentrated play with dolls, in sand pile, with blocks, etc., is noted.

Perception. This sense is becoming more and more definite.

Curiosity. This becomes varied; the child names animals and a few mechanical processes, such as engines or furnace.

Imitation. A tendency is noted towards imitation of adult action, speech and mode, and especially imitation of other children.

Memory. Verbal and motor memory is good. Things are remembered for longer periods than in the case of the two-year-old.

Imagination. This is vivid and concrete.

Construction. This art has its beginning in very simple constructions. Activities are still in the manipulation stage; his work is with sand, blocks, paints, clay.

Reasoning. This power is developing rapidly; the child associates experiences.

Language. He uses pronouns instead of names, is able to put thoughts into sentences, which by this time are complete. He begins to use connected sentences, that is, paragraphs. Experiences are related in story form. Nursery rhymes are clearly and voluntarily repeated without instruction.

Social-Moral. The child plays with other children. His play is flitting, that is, he begins to play with one child or several children, then plays alone, then goes back to the same group or to another; is still largely individualistic in interests.

There is a growing sympathy for others; e. g., he wipes away tears of another child; and gives toys to another child when the latter is hurt.

*Adapted from Teachers' Committee Report, by permission of Patty Smith Hill.

He is growing aggressive and self-assertive.

He becomes interested in affairs of other children, but largely as they touch himself.

He says, "Please;" "Thank you;" "I beg your pardon."

He behaves more politely at table.

Emotional. Control of emotions grows greater in normal child.

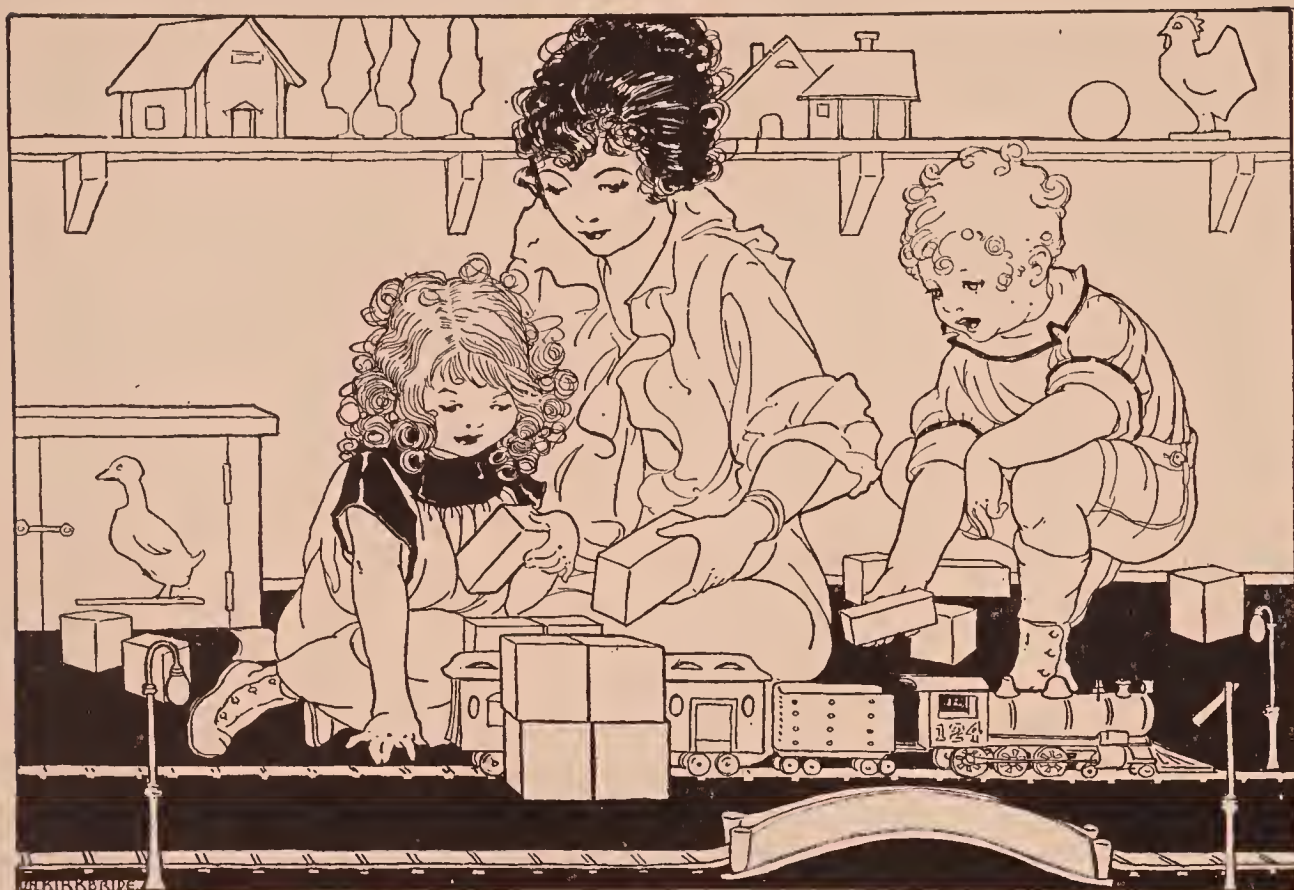
Bewilderment is apt to be a great feature of this age. To prevent this, great care must be taken in presenting material and introducing new environment.

Special Needs of the Child From Three to Four. The three-year-old needs the same physical environment as the child of two, but he also needs a little more. He is at the beginning of the constructive stage, and is not entirely concerned with manipulation. Therefore, he must have constructive materials such as clay, paints, paper, crayons, large beads to string, pegs and more picture books. He also needs pets and growing plants, not only to watch, but to tend. A child of three is a great adventurer, and needs careful watching so that he may not overtax his strength or become overstimulated.

He needs more music. The simple rhymes of marching and running gather fresh impetus from skipping and dancing. Appreciation of music is growing. The child will listen to music and require more nursery rhymes. Apparatus for outdoors, such as hoops, reins, skipping ropes, and smaller balls, are used.

At the end of his third year the child is planning and executing constructive work that requires real ingenuity and steady concentration.





The Child from Two to Four Years

HIS NEEDS, HABITS AND INTERESTS.

KATHLEEN EDWARDS

WHAT DO we mean by educating the child two to four years of age? Education in relation to the child of this period conjures up a terrible picture in the minds of some. They see the infant under a course of instruction, not realizing that the literal meaning of the word *education* is *leading* or *bringing up*. Let us think of life as a process of continual development, or growth, each state of which is important in and for itself, and education as a guide to the fullest and best growing, and then we find that this word *education* may be used to mean our bringing up from birth.

Years ago the priest who said that he was not afraid of the future of a child if he could train that child until the age of seven realized the importance of these early years, but he did not convince the general public. The nursery school movement going forward in England and America, and the work of such men as Dr. Gesell at Yale, are showing the significance of the pre-school years.

Dr. Gesell says, "The pre-school years are incomparably the period of most rapid and fundamental growth, both physically and mentally; * * * * the traits of infancy are not meaningless; they are of prognostic import. In them are concealed the indications of future defects and virtues."

How, then, may we help the child at this critical period, and how shall we set about it? What must be the foundation for our guidance? First of all, we must study the child and find out his needs and what we may expect of him. The findings of Dr. Gesell, Miss Harriet Johnson and all the nursery school workers will help, and with these as a guide we may study and provide for the individual child.

We find that at this period these people stress the formation of habits as the basis of the child's development. "The greater the number of good habits that an individual possesses in all fields—thought, feeling, conduct—the more efficient will he be, especially if among them is found the habit of forming new habits."

The greater number of acts which we perform mechanically (and the sooner they are so performed), the greater will be our power of going through more complicated processes of thought and action; for, as was once said, "Habits are platforms from which we step to higher things."

Habits may be classified under four heads: physical and personal, intellectual, social-moral, and emotional.

PHYSICAL AND PERSONAL HABITS

Early training in regular physical habits is not only essential for the child's physical health, but for his mental, social and moral growth as well. Some of the most essential habits along this line are the following:

1. *Regular Visits to the Toilet.* It is very important that the person who attends to the child should be well trained. He should have as little handling as possible, should be allowed to handle himself very little, and although he should not be hurried, the whole proceeding should be carried out in a simple and matter-of-fact way and as expeditiously as may be. The ignorant nursemaid very often produces in the child too lively a curiosity about his own body. She may leave the child too long unattended, or she may so handle him that the sensations produced cause a habit of masturbation. All this may be done quite innocently where there is insufficient knowledge. Masturbation may be due to ignorant handling, but it may also be due to other causes. An active child who is left awake too long in bed with nothing to do will naturally turn to his own body for amusement, and this again frequently happens if he is too warm under the bedclothes. Where masturbation is a habit, all these things should be avoided. The child should have something to hold, if he must lie in bed,

and during his playtime he should be kept busy and active and carefully supervised. Attention should not be drawn to the habit itself, and the child should not be punished.

2. *Washing Hands After the Toilet and Before Meals.* Low bowls, an oilcloth or rubber apron, and an attendant with patience are the necessities for the toddler's handwashing. Every child loves water, and the two-year-old will soon learn to wash his hands thoroughly if he be given the chance.

3. *Proper Use of the Handkerchief, and Covering for a Sneeze or Cough.* The very small child seldom uses his handkerchief properly, and at this early stage it is better to help him while showing him how to do it. The child who is left alone to wipe his nose badly, not only makes himself uncomfortable, but is liable to spread germs with his hands.

Sometimes a child has a bad habit of fingering his nose. This is often due to lack of proper attention and the wrong way of blowing. If this be attended to and the habit continues, the doctor should be consulted. Here again the child should have plenty to do with his hands.

4. *Brushing the Teeth at Least Night and Morning.* The baby at first should be allowed to play with his brush in the water, but gradually he will learn to brush his teeth quickly, correctly and with satisfaction. In beginning this habit, it is important that the child should not take a dislike to the process.

5. *Care of the Finger Nails.* A tiny child will take great pride in keeping his finger nails clean. This is not difficult, if he has a small toothpick.

Nervous children often bite their nails. They should not be left without something to do with their hands. Sometimes a little application of bitter aloes to the tips of the fingers will cure this.

6. *Habits of Sleep and Rest.* A child of two should have fifteen hours of sleep out of the twenty-four; at least an hour of this should be taken after the noon meal. The child should be put to bed where he cannot get into mischief, and should clearly see that he is expected to go to sleep.

7. *Eating Suitable Food at Regular Intervals.* Little children have so much soft food and so much attention is paid to their table manners that often the importance and value of something to gnaw is forgotten. Gnawing something hard helps the child not only to chew but to digest, for there is a better flow of saliva. Gnawing is good for the teeth and the jaw. It prevents overcrowding of the teeth, some dentists going so far as to say that if children gnawed as savages do there would be very little trouble with teeth. Be that as it may, it is quite easy to give the child at each meal bread baked very hard in the oven, or hard zwiebach. Sometimes a meat bone with very little meat on it may be given.

The child should not be allowed to have whims about his food. It is much easier to persuade a child to eat when his plate is not too full. He may be given more, but it is much better for a child to eat all of a small plateful than to eat the same amount of a large helping and leave the rest. Unless a child is sick, he should never be allowed to leave his food. Food that he dislikes may be given in very small quantities and gradually increased. If, however, in spite of everything a strong dislike persists, it may be watched without the child's knowledge and the doctor may be consulted. Sometimes there is a good physical reason for a strong dislike.

8. *Personal Habits.* Among the habits of the child of the age under discussion which should be given attention are the following:

1. Putting own toys away and taking care of them.
2. Keeping playroom and cupboards tidy.
3. Dressing and undressing himself.

By dressing the child in a few and simple garments, by using moderately large buttons instead of strings, hooks and snap fasteners, and by making as many garments as possible to fasten in the front, the two-year-old may begin to dress and undress himself. This process should be made interesting, and may often be helped by rhythm. The child may be given the tag of his shoestring and lace up the shoe as the mother says, "Criss-cross, push it in, pull!" Sometimes the mother herself may put in the shoestring and give it to the child to pull through. A great deal depends upon the physical energy of the child; at first he may only lace up half of one shoe, gradually increasing in independence until he can lace both alone.

In checking a bad habit it is very important that another bad habit should not become dominant. Because a child sucks his thumb or fingers, both of which habits should be stopped at their earliest appearance, there is no reason that he should be taught not to use the offending thumb or fingers in a legitimate way. Things that are not often used gradually become incapable of use, and a child who cannot easily use his thumb or fingers is going to be seriously handicapped. Checking a bad habit should as far as possible be done by substituting a good habit for a bad one. The child who sucks thumb or fingers should be given plenty to do with his hands, and where this is not a deterrent, cuffs should be made. These cuffs should be about four or five inches long, reaching from just above the wrist to the elbow. They should be made of some washing material, and boned or stiffened. They should tie around the arm at the top and bottom. Such cuffs allow free play in almost any way, but the child cannot get his fingers to his mouth. During meals the right cuff should be removed.

INTELLECTUAL HABITS

1. *Speech.* Many children are left for the day or for part of the day to nurses or maids whose speech is neither grammatical nor musical. When the children speak badly, the parents are both distressed and puzzled, although the reason is not far to seek. Says one writer, "As a general rule, intonation, inflection and accent are noticed by children, and responded to earlier than words; it naturally follows that these are also the first elements of language acquired by the child." It is therefore most important that the little child should be constantly with those who speak well. Children differ greatly in their ways of speaking and in their command of language, and this is largely due to their environment. We find one child of three speaking clearly in sentences and another of the same age using baby talk. It is entertaining to hear the lisping baby talk of a child, but it is self-indulgence at the expense of the child to encourage it.

Unless there is some real speech defect or physical retardation, the child of three should not be using baby language. From the very beginning the baby should be spoken to simply but in the same manner as one adult addresses another. Corrections should as a rule be indirect, an imperfect question or remark of a child being repeated by the adult correctly. When direct correction is necessary, it should be given in the form of a game. Many children lisp and use D for G. This should be corrected, even at three, by attempts to get the child in a playful way to repeat the word correctly. "You say that word one way, and I say it this way. Can you say it the big way?" If later on the trouble still continues, the position of lips and tongue may be brought to the child's notice. At five years the child should have no difficulty, but if a difficulty still exists, the advice of a specialist in speech should be sought.

Stammering. This defect is often due to ideas flowing faster than words. It sometimes helps to distract the child for a moment by making a remark or showing something that is not entirely irrelevant to the matter on hand, thus giving the child time to put his ideas into words. Stammerers often sing without any difficulty and very often early stammering can be cured by singing conversations to the child and having him reply in a similar way. Stammering should never be allowed to continue, for it grows more and more serious. One should not draw direct attention to a child's stammering. It makes the habit worse.

2. *Music.* Knowledge of music is too often regarded as an accomplishment and as one of the luxuries of life, and not as a natural expression of life itself. Children who sing their own little ditties to their dolls and tinkle away on a toy piano are frequently embarrassed by being taught songs so that they may perform for others. This kills what it is intended to produce again and again.

It should seem perfectly natural for the child to hear his mother sing and play as an everyday matter, and he should be allowed to do so himself or to listen without any attention being drawn to him. It should be as natural for a child to hear others sing and to sing himself as it is for him to play with his toys constantly, and just as unnatural for him to be expected to do it for "show." In this way music will become a vital part of life to the child and not an embarrassing accomplishment tacked on. Nursery rhymes sung to and by the child, free interpretive dancing, leading to more complex songs and dances and to the free wish to learn to play an instrument should be the right of every little child. If this were universally believed, it would not be necessary to ask the child to perform, for he would do it now and then as spontaneously as he plays.

3. *Nature.* The unconscious influence that nature brings to bear on the child is pregnant with possibilities which we are unable to gage. Every child should have some contact with nature; ideally, he should have access to a garden. Where, however, this is impossible, nature should be brought into the house in the form of growing plants and flowers which the child may tend himself. He should first familiarize himself with a growing plant, and cut flowers should come at a much later stage. The little child should not grow up with the idea that flowers are meant to be cut, put in water for a day, then thrown away. That gives him a wrong idea of the part nature plays in life.

4. *Play.* The latest theory of play is that it is "a biological need and a stimulation to growth." Through play the child reveals himself, and habits of play lay the foundation for habits of work and leisure.

We may help the child to form good habits of thought and concentration through his play by providing the right stimuli of environment and equipment. The equipment of a child's room will be discussed later; a few remarks will suffice here. The child should learn the habit of putting away one thing before playing with another, although such a thing as a finished building product may be left as it is. He himself should be encouraged to finish what he has begun, although where his attempt has been very great it may be better to help him in the end. Help should be given judiciously, and only where the child has reached a level from which he does not progress. As long as he is learning something from it, the child may do one thing for days, but when all new learning is exhausted, it is time he turned his attention to something else.

The play of the two-year-old consists mainly of gross physical activity. He climbs, he drags himself along smooth surfaces, he slides, he shuts doors, he opens and shuts boxes again and again, takes things from the cupboard for the joy of putting them away, empties and fills and empties again. Provision should be made for these activities, and where there is sufficient provision there

will be less mischief. As a general rule, the sandpile follows the climbing and scrambling stage, and then comes play with blocks.

The child should be able to unify his play, but this he cannot do if toys are presented to him as separate entities. The child can play with a doll alone, he can play with dishes alone, and with a doll's bed and carriage, but how much more does this play mean to him and how many more possibilities does it suggest to him when the doll, bed and dishes are related to each other. A train means much more to a child when he can build a tunnel for it out of blocks; blocks mean much more when they present the possibilities of a tunnel for a train. By presenting toys in this way, we can help the child in his development very considerably.

SOCIAL-MORAL HABITS

Morality has been called "the intelligent choice by the individual of habits of action for the good of the group." Moral standards differ according to the race, nation, town and society to which an individual belongs. It is evident, then, that moral habits are acquired, and a little child is neither moral nor immoral, but non-moral. The attitude of those who constitute his environment towards the expression of his instincts will determine the child's moral standard. His conscience is derived wholly from the authority of the surrounding adults, and his moral habits are formed by the law of effect. Right is that which wins the approval of the elders, or which provides the satisfaction of a desire. The basis of morals, therefore, is the formation in the tiny child of good habits which will lead on to intelligent reasoning and moral choice.

Some of the habits that may be expected are the following:

1. *Obedience.* Where it is necessary that a little child should do or not do a thing, a simple, kindly, but firm command should be given and obedience insisted upon. When obedience is expected, commands, and not suggestions which may be disregarded, should be given. A child becomes bewildered if suggestions may be disregarded at one time and not at another. There should be consistency in requiring obedience; it should be strictly necessary and rational before being required. Lengthy explanations bewilder the tiny child, and are as a rule unnecessary. It is unfair to ask him to do or not to do a thing without having him comply. The answer, "But I don't want to!" meeting with the reply, "Oh, very well, then I can't make you, but I'm very sorry and disappointed," has no effect on the very young child, and does not help him. He will certainly continue to do that "which provides the satisfaction of a desire," and every time he does it the habit will become more fixed.

Where punishment is necessary it should not be too light or too severe, and

the child should understand the reason for it. It should be given immediately after the offense for a child's memory is short. To be lazily lenient to a child is just as much a form of self-indulgence as to punish, not calmly for the child's good, but to relieve personal vexation.

2. *Self-Control.* The child should be helped to recover quickly from accidents and disappointments, so that tears may become less and less frequent.

He should learn not to snatch all he wants from other people, but unless real physical harm results the fighting instinct should not be constantly checked. "There is every reason to believe that this crude, often cruel, instinct has in it possibilities of development which make for coöperation, group spirit and moral fibre. Not disuse nor suppression by punishment, but graded substitutions leading to sublimation is the necessary treatment."

3. *Self-Reliance and Independence.* The child of two, having at first the responsibility for his toys, then for carrying out some activity, and then for more and greater responsibility, will gradually grow to a state of self-reliance and right independence which does not come when everything is done for him.

4. *Unselfishness.* This quality is beginning to dawn by growing ability to take turns and to share in little things.

5. *Reverence.* Reverence begins by assuming an unconscious attitude toward certain things induced by similar adult attitudes. It is largely a matter of imitation.

6. *The Right Attitude toward Adults.* The child should not feel too keenly the proximity of adults. He is at the individualistic stage, and should be allowed to develop with very little interference. At the same time, he should realize the rights of adults, and should never be allowed to think of them as simply useful persons for play and comfort.

Children should not be left completely alone in their play away from adult supervision, for they realize so little the possible results of their acts. Children who have much play in shut-off playhouses and playrooms tend to act in one way when alone and in another way before adults; in this way the secretive spirit germinates, though it may be unconsciously. What we want to foster in the child is openness and confidence. If we accustom him to enjoy his play with our approval, we shall guard against secretiveness. Children should feel that they are trusted, but they should not be left entirely alone during these early years.

EMOTIONAL HABITS

The emotional life of a child is very closely connected with his health. The child should be accustomed to adapt his health now and then to new situations and to new people, so that such things may not cause undue excitement. Such

adaptations too often or too seldom are likely to cause bewilderment, fear, distrust, or a superabundance of joy, which cause much strain.

1. *Fear*. In helping a child to control fear, example is very efficacious. Fear should never be shown in the presence of a child. A calm attitude soothes and helps him to control his own emotions. If in any way the object of fear can be made to produce satisfaction, this is also a tremendous help to the child. A child's fingers in contact with the smooth, silky coat of an animal, or the sight of an animal playing gently with another person, will often reassure a nervous child. A nervous child, however, should never be *forced* to contemplate or touch the object of fear. Sometimes it needs long patience to substitute calmness for fright.

A five-year-old child was terror-stricken at the thought of a thunder storm, because the whole family became almost hysterical. A visitor happening in the home during a severe storm took the child away to another room. The visitor said, "Oh! did you see that beautiful flash of lightning; it made things bright as day!" Then she wondered "who was rolling the wooden ball," etc.; soon the little one became most interested in the new phase of things and forgot to be afraid.

2. *Anger*. Opportunities for anger should be avoided whenever possible, but when it does occur it may be controlled by working off the energy through some violent exercise, a quick diversion, or a laugh-provoking joke.

In training good habits, we must remember that by the law of effect, learning, to be permanent, must be attended by satisfaction. It is of no use to coerce the child into good habits; we must make them appeal to him. This means, also, that we must not expect too much of the child at once; we must not allow him to use up "the last ounce of energy."

This early training in good habits requires so much patience and waiting for the slow movements of the child that the busy mother may feel it impossible to give it. In such a case, the child may be allowed to try perhaps once a day until he is able to do more for himself.

Constant supervision is also a problem to the mother who does not depend on a nurse, but if the children play in a room opening into that in which she is working, or in a yard overlooked by a window or door of the workroom, it should be possible to watch the children.

The intelligent mother generally finds a way of providing the best that is possible for her child.

THE EQUIPMENT OF NURSERY AND YARD

The first essentials for providing for the activities of the young child are plenty of space for the free play of the large muscular movements, plenty of

fresh air and plenty of sunshine. This is not always easy to furnish under the conditions of our modern civilization, but those who really care for their children's welfare will give them the largest, airiest and sunniest room in the house as a nursery. Every child should spend a great part of his time out-of-doors, and a safe yard is the most ideal thing for him.

In making these suggestions for nursery and yard equipment, the ideal is considered, but here and there substitutes have been suggested to meet the needs of those who cannot plan for the ideal.

Many mothers feel that they cannot supply all these needs of the child, and yet they wish their children to have the best. The ideal nursery school offers these things, and in addition, something which even the best home can very seldom give the child—daily companionship of equals. The nursery school seeks to coöperate with the home, to draw the mother and child closer together, by helping both. It plans, first and foremost, for the child himself and at the same time helps the busy mother. A parent can visit the nursery school at any time, for that is a part of its plan. It is good for the mother and the child to have a part of each day away from one another. They are more aware of each other and more able to give entire attention to each other when they come together again.

For the sake of the child as he is now and as he will be, the ideal nursery school is the place to send him, but as in everything else, all so-called nursery schools are not ideal. The mother must be sure that the school is giving more than she can give unaided, before she trusts her child to it.

THE INDOOR NURSERY

Small slide, or small step ladder with firm top and wide, smooth board fixed up for sliding.

Kiddy car.

Balance-beam.

Packing box (large).

Work bench, nails, hammer and wood.

Wagon (large).

Covered boxes.

Empty spools and strong twine for stringing spools.

Small tables and chairs.

Chest of large blocks.

Strong nested boxes.

Low wall blackboard, or painted linoleum.

Small cupboards and shelves for toys and books, or orange boxes fitted up.



Easel for painting.

Large paint brushes and water color paints; crayons.

Small dishes for palettes; bogus paper.

Clay.

Large football and smaller balls.

Piano.

Toy piano.

Growing plants and watering can.

Dolls, preferably Chase dolls or Schoenhut dolls.

Doll's bedstead (large, strong); bedclothes.

Dishes and other housekeeping things.

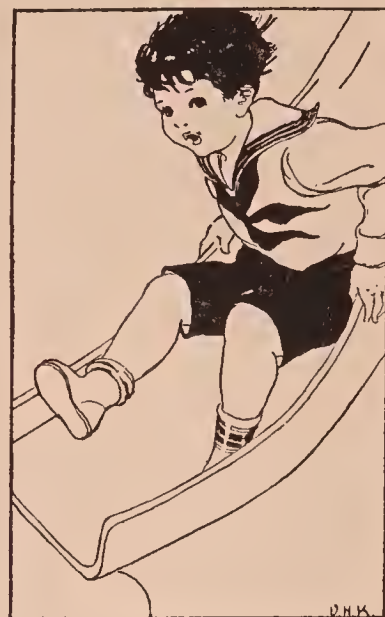
Ironing apparatus.

Washtub and small, light pitchers and buckets.

Small mop, broom, dustpan, dusters.

A few good pictures, hung low.

Mother Goose book, with pictures, and other good picture books.



YARD

Slide.

See-saw plank.

Balance beam.

Low swing.

Packing box (large).

Large yard blocks.

Trains.

Wooden horse.

Kiddy car.

Large wagon.

Sand box.

Pails.

Spoons.

Trowels.

Shovels.

Small dishes and cups.

Broom (for sweeping up sand).

A football or basketball; small balls.

Manual bench, hammer, nails, stout lumber.

Growing plants.

Pets: Dog, doves, rabbits.

BIBLIOGRAPHY

A Nursery School Experiment: Harriet Johnson, Bureau of Educational Experiments, New York.

Nursery School Education: Grace Owen, Dutton & Company, New York.

Psychology of Childhood: Norsworthy & Whitley, Macmillan & Company.

The Pre-School Child: Mrs. Max West, Children's Bureau, Washington, D. C.

Understood Betsy: D. Canfield Fisher.

Mother and Children: D. Canfield Fisher.

His Social Needs from Two to Four Years

MINNETTA S. LEONARD



AS stated before, this is the time when the child is discovering himself as not only a separate body, but a real person with desires and a will to get them. Now come frequent clashes with various members of the family, and usually the mother, whose will most often crosses his in the enforcement of rules.

He needs to meet more people. His tentacles are out to take in all he can of new expressions, of people, their language, and their actions. He is most individual and self-assertive and often quarrels with all about him, especially with other children. It is his method of finding himself, and he needs people, especially children who hit back and resent his unsocial acts, to set himself over against, also to stimulate him to acts he wouldn't think of perhaps alone and to urge him further in the activities he has already attempted.

The nursery school Miss Edwards refers to elsewhere is one place where these contacts occur. Such a school has the advantage over the home in that it is an ideal environment for the child, with proper equipment, plenty of space, and in charge of persons especially trained in the needs of the child at this age, whose sole business is to look after him.

*Until these schools come within the reach of every one it is quite possible for several mothers in a neighborhood to plan to take turns in caring for all the children for a few hours each day. If one large room is available, they may each contribute articles and toys for all to use in this room or on a playground. The children themselves will benefit by the contact, and each mother, except the one in charge, by having a time free from her child's care to finish bits of work, get a little time for quiet reading or meditation and by this relief to overtired nerves be ready to take up the care of her child again with better control. Each mother will also be helped through opportunity to compare her child with others of his age.

But frequently, because of lack of opportunity or prevalence of disease or peculiarities of the particular child, these wider social contacts through the ideal nursery or playground must be postponed until the age of four and after. If for the sake of better health and poise we are to keep the child in so narrow a group as the family and a few friends, we must see to it that he gets the

*One group of mothers of my acquaintance live in an apartment house. They take turns in preparing the noon meal for all the children under seven and either serving them together or sending them into the various apartments. This is a great saving of each mother's time, as their family dinners are served at night.

most of real benefit from this group. If we deprive him of the chance to learn "yours" and "mine" from playmates, his parents must be sure that they react to him in the home in such a way that he learns it. "No, no, that is father's desk. You play with this—this is all yours." If he disregards, he must pay some penalty. He must learn that there are certain rights of mothers, fathers, brothers and sisters which, baby that he is, he *must* regard. Big brothers and sisters must not be made to give up their rights to stop his crying, whining or teasing—at least so that he knows of it.

You have many times heard quarrels settled in such manner as this: John squeals. His older brother so often teases that mother, without looking into the cause, calls out, "Henry, what are you doing to John? Whatever it is, stop this minute!" Henry is hurt at the injustice. John being as bright as other babies, has found out that mother sides with him and that squealing pays. He'll continue to use this method until he tries it once upon another child, who, no respecter of persons, deals swift justice. John's little world tumbles about him, and his soul is grieved over his wrongs. An investigation of the cause would have been justice to each child, and a quiet explanation to John would have helped him to meet the next difficulty as he should.

His elders owe this much to him—that the adjustments they attempt in the family are similar to those made in the world outside the home. This will show what is meant. Ralph repeatedly slapped his mother painfully in a play which was too rough. After trying to change his play, his mother finally took his hand and slapped it hard enough to hurt. She smiled when she said, "How do you like it?" Ralph looked at her first in amazement, then threw his arms around her and said, "I'm sorry." His companions would have responded in the same way, but with vengeance written on the face. Ralph in that case would not have said, "I'm sorry," but would have defended himself lustily. A real quarrel, with injured feelings, would have resulted.*

Again the presence of the baby in the home is the mother's opportunity for helping older brothers and sisters to understand fundamentals of child training. A true understanding will not only save the baby of the family from "spoiling" but make the relations between the older children and the parents closer because based on sympathy and justice for all. We too often know the hurt of the child next to the baby. Every child should receive his own share of attention and find himself as a real individual in the family group, without over-emphasis because of being the baby or not being well. Habits of thought about one's place in the home will persist always. He cannot too early begin to find himself socially.

*A story related in *Spontaneous and Supervised Play*, by Alice Corbin Sies.



His Plays

THE play of the two-year-old is beginning to take various forms. Under "The Child's Gymnasium" are suggested plays developing bodily control and skill. Under the general subject of handwork are discussed his "making" plays. Another very important type of plays which will at this period occupy more of his time than any other one, perhaps, is the imitative, or representative, plays. He plays perhaps a whole day that he is a puppy and wishes to be fed, stroked and talked to as a puppy. He is getting all possible experiences of puppies. Another day he is father going down town, the butcher, the baker, the ragman, mother doing all sorts of housework, the piano tuner who just left the house, the plumber who repaired the faucets, the painter, using a hat brush and a box cover for a paint pail—all the people or animals, even things like automobiles and engines, which come in his way. Mothers may help to get all possible good from these plays by entering heartily into them. The play relations are very sweet indeed, and things the mother teaches through play are kindly received by the child.

Read the article on "How Children Teach Themselves," in this volume, for a fuller discussion of the values and development through play.

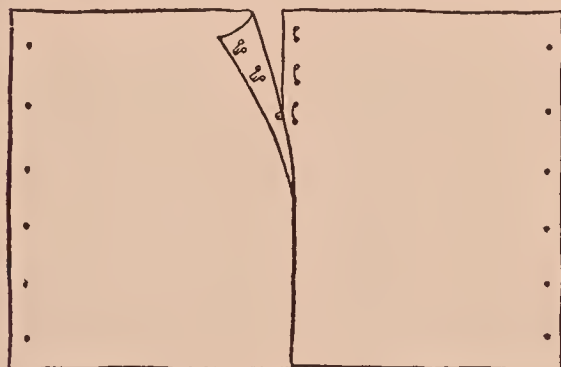
His experimental plays leading to a knowledge of the laws of things, science, etc., are not listed.

Playthings listed in Miss Young's article in this volume give him opportunities for such experiment.

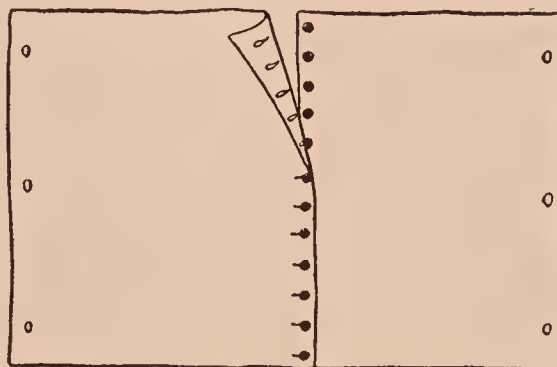
Montessori in the Home.

THE Montessori Schools are of much value to the child at this age, although they are not as valuable as the Nursery School (not to be confused with the Day Nursery). Montessori, however, has contributed a great deal to our elementary and kindergarten schools, and mothers will do well to base home work upon three Montessori principles.

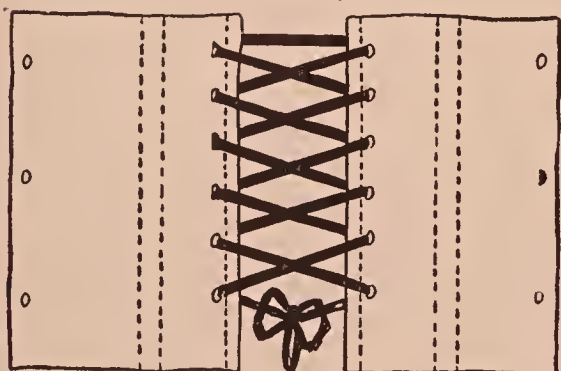
Montessori first makes much of the necessity of freedom for the child to work out his own problems. She emphasizes non-interference. Secondly, she makes much of sense education and has materials which train eye, ear and touch. The third important principle she stands for is the development of coördinations which give bodily control in dressing, setting the table, carrying liquids, walking on a line and others. She has an elaborate set of materials for the use of the very young child. However, some home made substitutes are even better than hers, because they are a part of the child's life and he uses them in ordinary activities. The following pictures will illustrate our meaning.



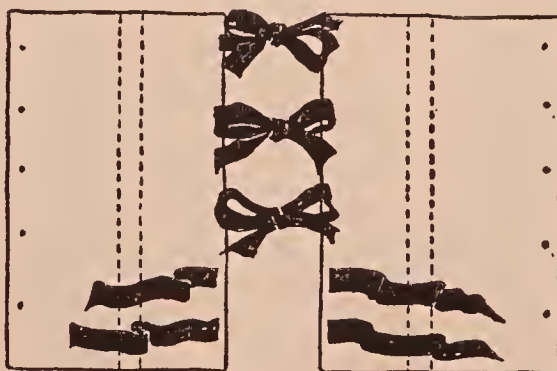
Hooking



Buttoning



Lacing



Tying

TO GIVE CONTROL IN DRESSING AND SELF HELP.

HOME MADE SUBSTITUTES



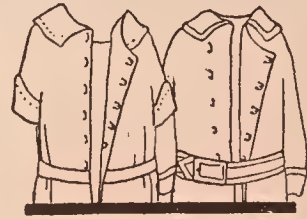
To give the same control.



The rag doll is beloved of all others, and serves many purposes.



Buttoning



Hooking



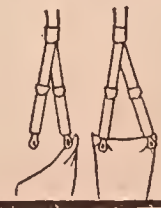
Snapping



Lacing Shoes

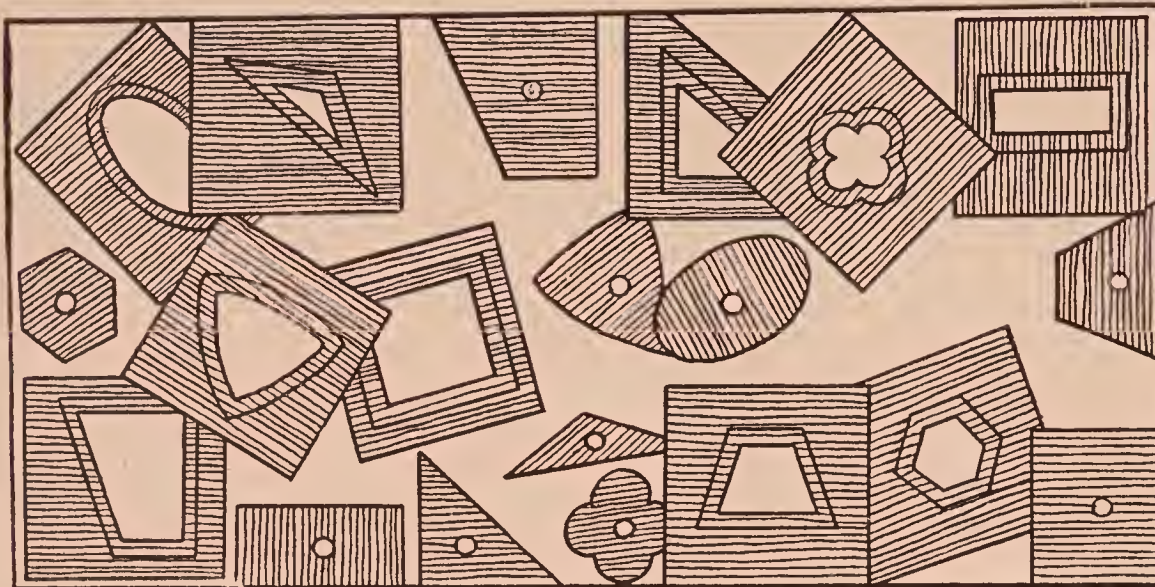


Tying Bows

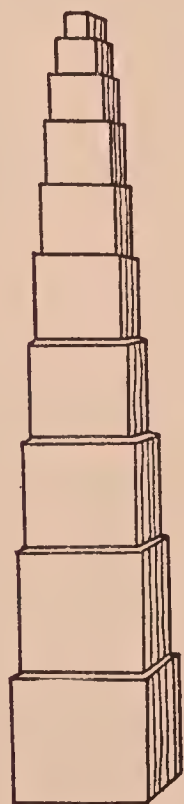


Fastening Garters

A rag doll, size of one- or two-year-old child, which can wear all his clothing. The Butterick pattern books show one. A clever mother can make a large Raggedy Ann or a Black Sambo from old stockings,



Wooden insets.



"The Tower"

Blocks of colored wood.

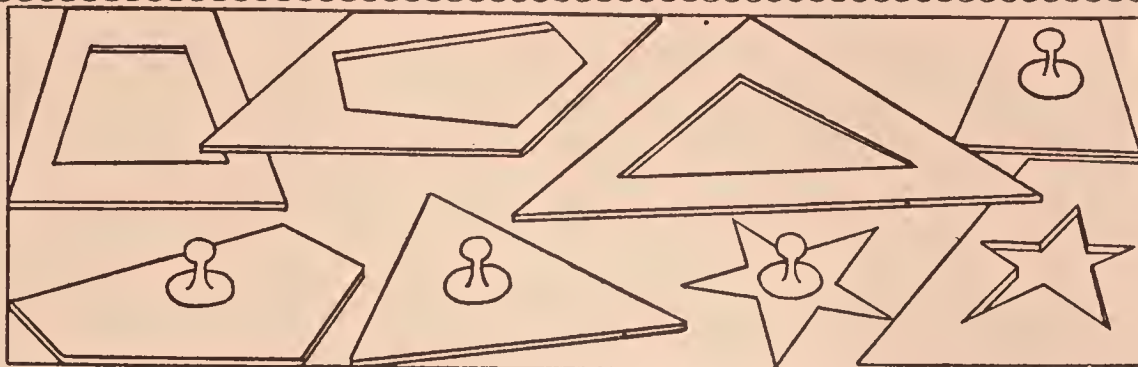


"The Broad Stair"

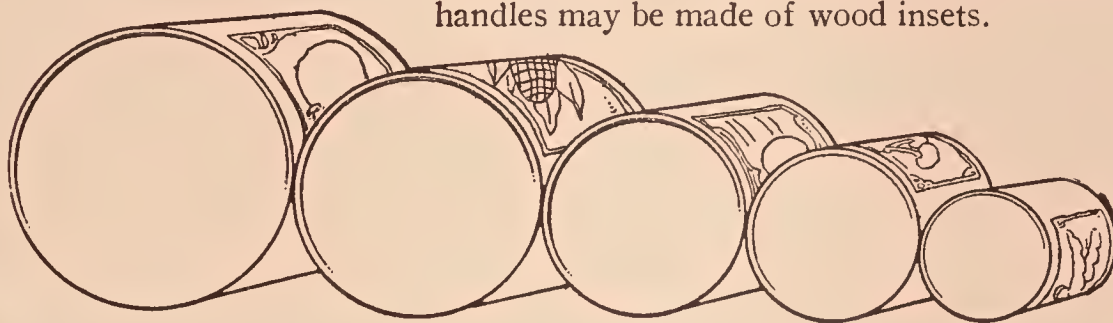


"The Long Stair"

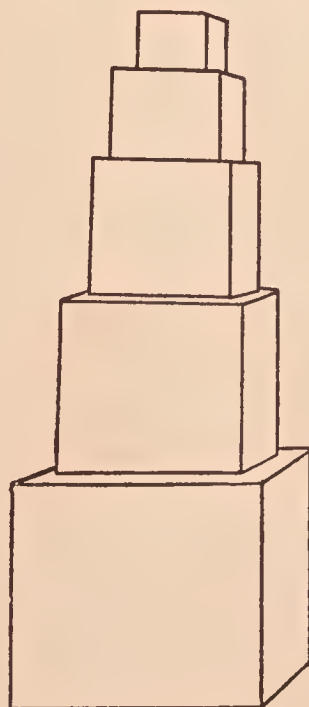
MONTESSORI'S MATERIAL TO
DEVELOP MUSCULAR CONTROL
AND SENSE DISCRIMINATION.



Beaver board with collar buttons glued on for handles may be made of wood insets.

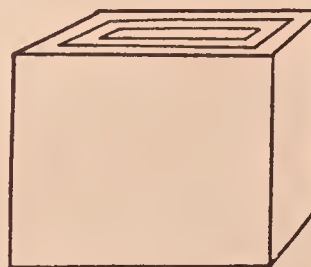


Cans of vegetables and fruits easily secured at the grocery.

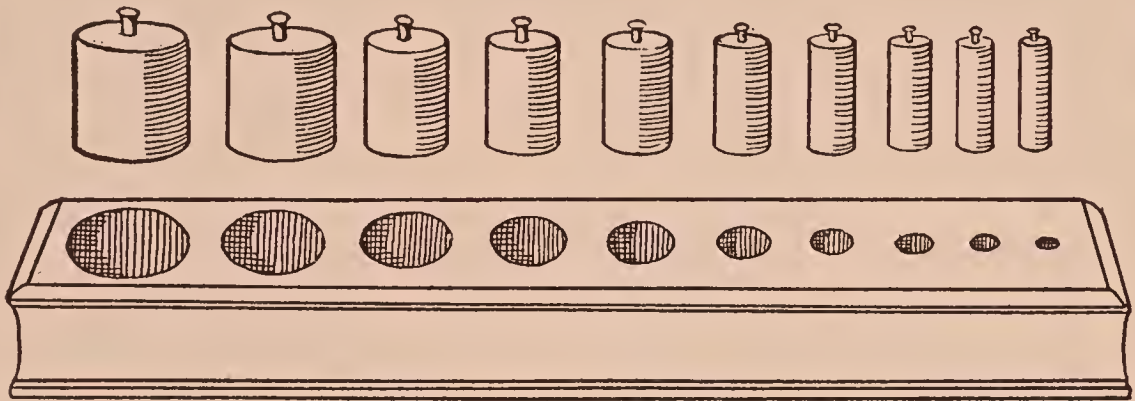


Block nests to be had at the toy shop.

HOME SUBSTITUTES
WHICH DEVELOP
THE SAME.



MONTESSORI INSETS FOR SENSE TRAINING.



Home-made insets may be made of cork with collar button handles glued on, to be fitted into board or pasteboard holes.

SENSE TRAINING.

Color Training. Montessori uses many cards wound with silk which are to be arranged in color scales. From Thomas Charles or Milton Bradley, or the Prang Company excellent colored papers may be had. These wrapped around cards used for card files and pasted may be used in the same way for the baby. Do not try to get him to use the color names. The consciousness is what we are after—later the names will come. To ask too early for these will only confuse him. For naming colors later use only the six pure colors, red, orange, yellow, green, blue and violet. Shades in between are often confusing.

For ear training Montessori has six sealed cylindrical boxes filled with various materials, each making a different sound. The home can substitute baking powder cans or boxes, sealed so baby cannot use them as receptacles for materials of any kind, and filled with salt, sand, beans, a few marbles, nails, flour or rice.

The child can also listen to tones played on the piano—very high, very low: intervals 1-6 going up; 6-1 going down, etc.

Have him shut his eyes and guess whether with the scissors or a spoon you hit a glass, wood, tin, etc.

TO DEVELOP THE SENSE OF TOUCH.

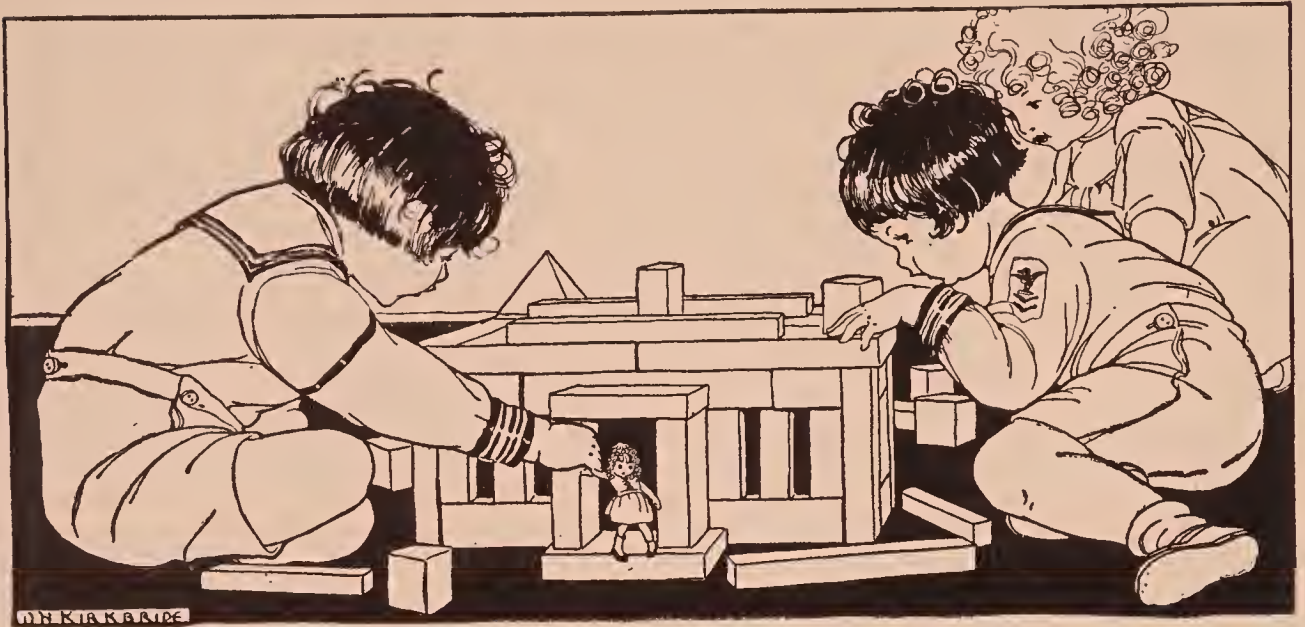
He can feel silk, wool, velvet, fur, or various other objects held behind him.

All of these must be games the child enjoys and chooses. Just knowledge for the sake of knowledge is of little value. But if children play these turn and turn about they are often enjoyed.

Montessori methods and home methods for developing muscular coördination through household activities may be the same. The child should be encouraged to carry liquids without spilling and dishes on a tray, to walk on a line, and to perform various other similar activities.



AN EXERCISE WHICH DEVELOPS
MUSCULAR COÖRDINATION.



Basis of Selection of Children's Toys

ELIZABETH D. YOUNG

STANDARDIZATION is surely the word of the hour; not even children's playthings may escape. However much we regard toys as a pre-supposition of childhood, now that everything connected with children and their interests has taken on a new seriousness, playthings may no longer be selected carelessly by parents.

In such a study as the present, one may ask to begin with, Why have toys at all? Do they actually fulfill a need of childhood, or are they something which social habit has sanctioned and which tradition passes on—incidentally a gratification for the adult to buy. The question is pertinent, for the place and function of toys is often misunderstood or abused. The routine of custom has us all by the throat, so that the meaning underlying the custom may be entirely overlooked. Without doubt the plaything wisely chosen is an asset to childhood. On the other hand, indiscriminate buying will prove bane rather than blessing. Just playthings carry no value in themselves; the test of their usefulness will lie in their selection.

Before any principles of selection in choosing a plaything can be applied, the first essential to be considered is the nature of the child and his fundamental impulses and instincts. If one may be forgiven the trite remark, it is the child who is the one who is going to use the toy, and he is the one for whose satisfaction the toy is bought. Therefore a knowledge of his makeup is essential. In a sketch such as this no attempt can be made to outline what any psychological study will furnish—a description of the original equipment of impulses and instincts

with which human beings start life. Every library bookshelf is provided with such material, and everyone having to do with young children will want to make some such study, no matter how intimately she knows her own child or group of children. She must see the thing generalized. On the basis of what such a study yields of the characteristics of childhood, one may well suggest for the selection of children's toys some such standards as these which follow.

Let the plaything be durable; this is a prime necessity. The toy must be made to stand hard wear, the most solid, best-made thing of its kind to be had in the market. Better buy nothing than to buy a flimsy, poorly-constructed article which goes to pieces the first time it is used. Think of the disappointment, and the annoyance, too, when a wheel comes off and the wagon tips over and goes along lop-sided, probably spilling out precious contents along the way. The doll whose legs and arms are so loosely put together that pulling them out is almost suggested is a poor kind of toy. Broken bits of nursery toys on every hand bear evidence of the mauling which has proved too much for the average plaything, and suggest to the wise that we buy better.

The corollary to this is the second standard, that the toy be simple, crude, not elaborate or complex. The ingenuity of the toy-maker delights in producing the finished and perfect product, but the child, not the toy-maker, is the one to be suited. His needs are for simple articles which offer scope to his manipulating impulse—free to construct and to tear down to his heart's content, without injuring his playthings. Wooden blocks of all shapes and kinds, both larger and smaller, boxes and boards for outdoor play, materials to put together and build up and roof over, which may become the nucleus of interesting play in a thousand different directions—from the experimentation that builds up for the fun of toppling over to the steadily carried out plan of a house big enough to crawl into, or at least to tuck a doll into.

There is also need for plastic, crude materials which yield easily to a child's experimentation in other ways—paper and crayons and a blackboard, dull scissors and paste. Puddles, mud pies and a sandy beach have never failed to attract; so where a substitute is called for put in a jar of clay and a deep box of sand with some patty pans. Things to string on a cord or necklace, buttons, beads and fancy shapes of all kinds, things to finger and sort over, shapes to put together and pull apart. Some of the enlarged material of both kindergarten and Montessori schools make excellent home playthings, but less expensive articles serve the purpose equally well. Avoid the lure of the complex toy—the baby house complete and finished down to the lamp on the table and the curtains in the window, leaving nothing for a child to do but to stand and admire and disturb as little as possible. How much better a box or a set of boxes to make your own

baby house, with every chance for painting and scrubbing and furnishing, and all at small cost. In general, avoid the mechanical toy, that expensive and fascinating toy which the adult delights to wind up and set going for a child to enjoy. But the child clamors for it himself. He wants it in his own hands and wants to work it himself—which generally puts an end to the toy. To be sure, there are friction trains and singing tops which are admirable exceptions to this rule, but in general the mechanical toy offers no lasting satisfaction. Raw materials that are easily modified serve a child better.

While I have already spoken indirectly of physical activity, I want to state more specifically that the degree to which the toy induces physical movement is another standard of selection. While no little child can be incessantly on the go, his waking hours are spent in the main in doing things—moving about from place to place. The impulse to physical movement is as strong an impulse as he knows; so let there be toys which fit into it. Balls, wagons, carts, things to pull about, trains, hoops—for outdoors, low swings, small slides, see-saws, simple apparatus that will feed the strong impulse to move about. Impracticable suggestions these, the objector will say, in the face of the modern city apartment, with neighbors above and below, and no place outdoors to turn to. Perhaps the city flat is not desirable for childhood. Modify as you must, I would hope for better things.

In this connection, a word is in order on the fact that little children enjoy weight in their playthings. While small objects undoubtedly have their charm and a child will laboriously pick up pins and any small shiny objects from the floor, yet it is not to be denied that little children like to feel weight in the things they busy themselves with. Objects that have to be tugged and pulled into place have a real charm. Who has not seen a child dragging something about so much too big for him that it immediately sends the interested adult who does not understand to help and interfere. All psychologists agree on the need of developing the larger muscles first in the early years of life. Therefore, let us follow the child's own clue and give him playthings sufficiently large and bulky. The rag doll, heavy enough to feel as she carries her about, is much the better plaything; as she grows bigger perhaps she may dress her in the very clothes that baby sister wore—her shoes, too. She may do some interesting Montessori work on her own account with your improvised material, buttoning her up and lacing her shoes.

Another large consideration in the selection of playthings is the fact of children's efforts to participate in the life about them. They do this with dramatic play, using whatever objects are handy, and they also do it actually, whenever they get the opportunity. This latter tendency the adult often blocks because it tends to be a nuisance. In dramatic play a little girl will set her table with her

dishes and play at drinking tea, with her dolls set up around her for company. Gravely the meal proceeds. "More tea?" "No—but cake, please." Again she will get in the kitchen, if she has the chance, and likes nothing better than to share in what's happening; buttering a tin, cutting out a cookie—perhaps buttering her own small cake-tin, dropping in a lump of dough and baking her own small cake. Housekeeping toys, dolls, cradles, dishes, washing, ironing and cooking outfits, in simple solid shape are all desirable.

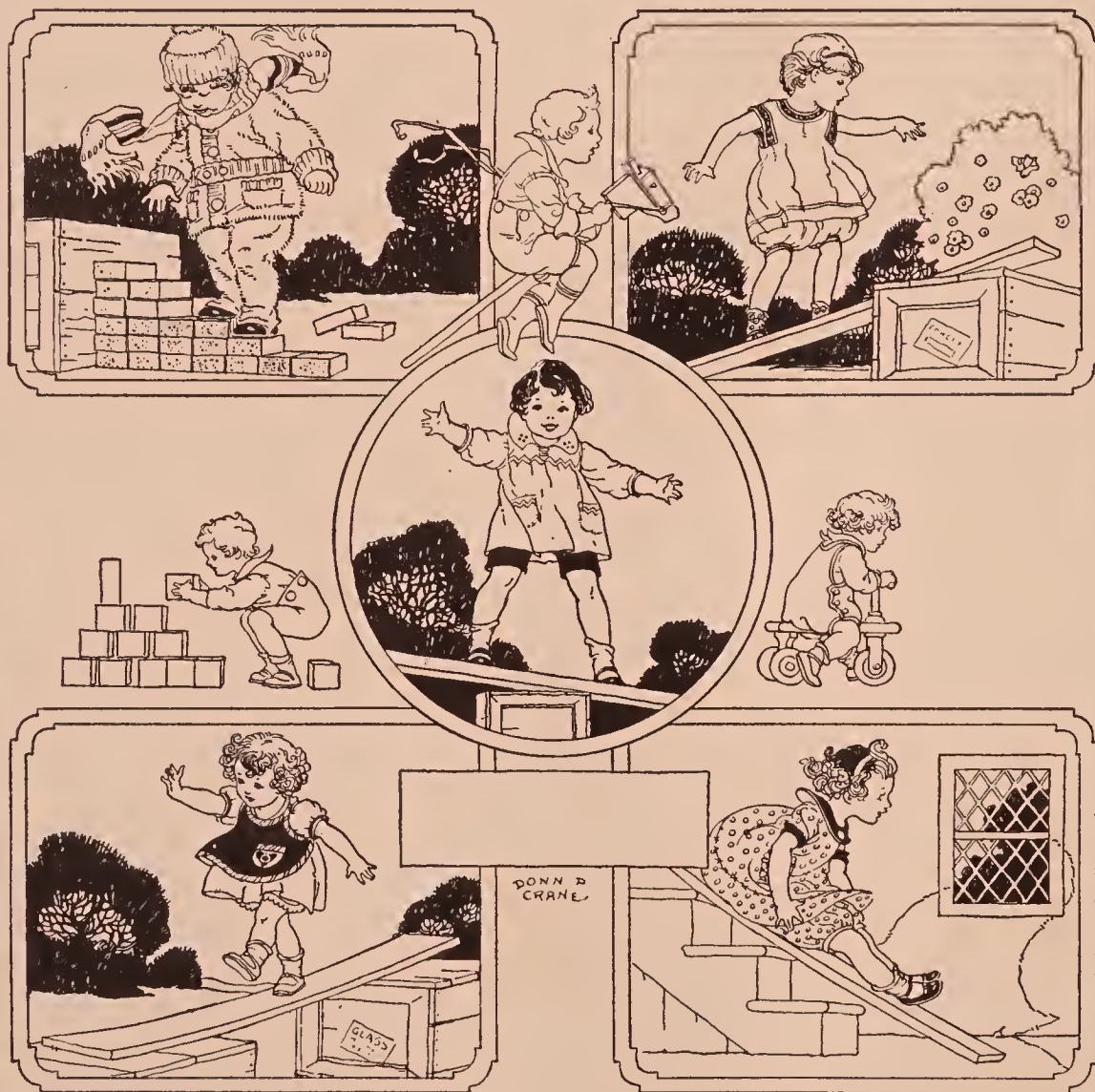
Experience tells us that there is no gauging what may be best liked in the way of a doll. The battered, homely Dinah will be loved and petted, while the Paris beauty with her flaxen curls lies face down on the floor. Tracks and trains and stations are another series of toys that should be mentioned in this connection. Add tools and a garden outfit of the best-made tools available in small size. Animals of all kinds—those blessed with joints to stand up when desired, the historic Noah's Ark of a generation ago, and the soft, woolly sheep to take to bed at night for company—such are very desirable nursery folk. On the whole, there is little differentiation to be made on the basis of sex in young children's toys, yet nobody plans to give a little girl trains, although her brother may cherish a baby doll if no one laughs him out of it. Later, aptitudes become more marked.

The danger of urging too many toys is upon me in making this study on selection. Far better too few than too many. It is because a child is and must be eternally busy, and generally busy at something, that we provide him with toys. His business is generally with things. If he has the good fortune to grow up in simple, outdoor surroundings where the abounding possibilities of sticks, stones and Mother Nature are at his disposal, with a child or two for company, a yard with interesting features to explore and use, then playthings may well be reduced to a minimum. But life in the house is less suggestive of playthings. The environment is not malleable. Indeed, grown folks do not intend that it shall be. Chairs and tables and beds are objects intended to sit on and to sit at, and to lie upon—not possible trains, cars, and resilient jumping places. It is only a chance when the furniture may be appropriated. The baby cannot be patted and poked and dragged about and made to do this and that, nor can the kitten or the dog be mauled as you could wish; things in general are not pliant to your impulse—therefore the explanation of playthings. Wisely selected, the plaything is an avenue for activity to expend and express itself upon. The child should find in it satisfaction and that deep contentment of soul which marks the little child's mood when happily busy at play.

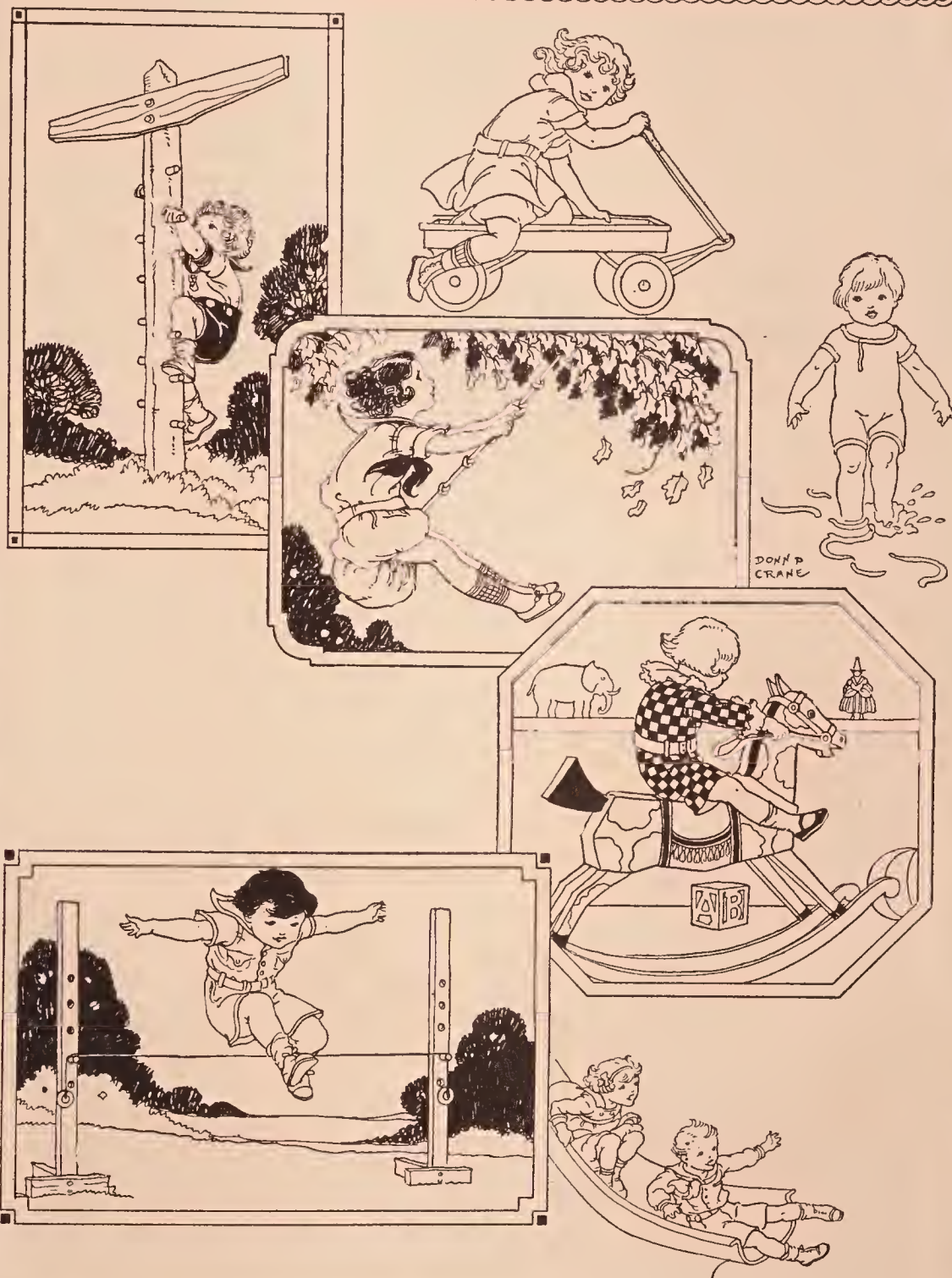


The Child's Gymnasium

FROM 2 TO 4 YEARS



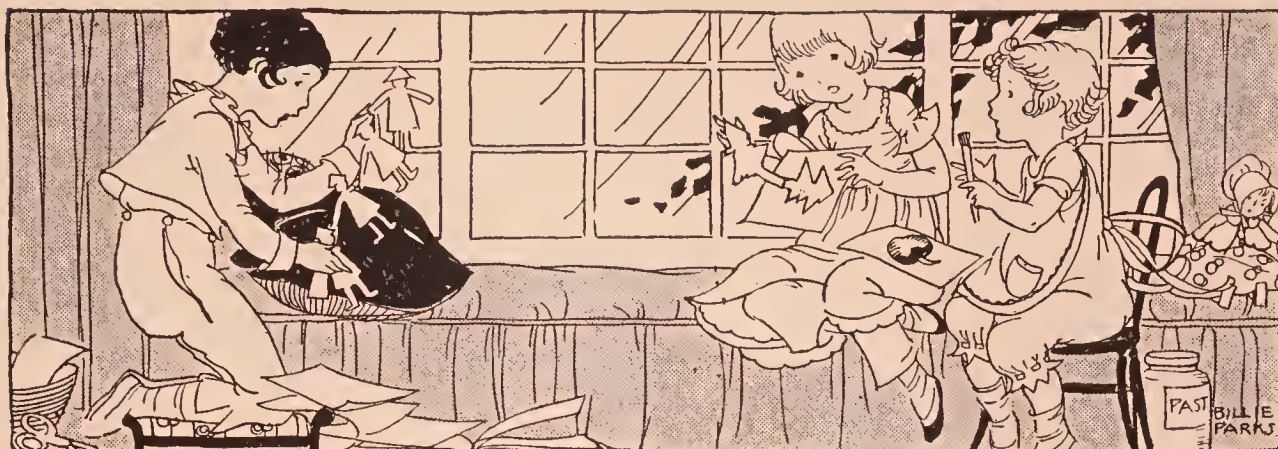
The child has gotten the big muscles to work for him, but they are far from under control. Almost endless repetition of these plays will give him a real control and ease in the use of his whole body.



Many of these plays may be carried on indoors if the parents are willing to put up with some noise and the bother of extra chatter; cellar stairs, the attic or bedroom doors may easily be worked into service.



The child is gaining a real joy in achievement through these plays. Not only does he learn to do these "stunts," but to do them with abandon and sureness which means certain health and joy.



How Making Comes from Playing

MINNETTA S. LEONARD

THE baby has had all sorts of playthings, some of which could never be used for creative purposes and others which have these possibilities. He scribbles on paper for the mere joy in it. Suddenly, sometime, his imagination sees a "kittie" in the marks he has made. The joy he gets from having made *something* leads him to try it again. With his blocks shoving along on the floor he discovers a train. His idea of a train begins to work, and besides making it seem more like a train by his "choo-choo's" and "ding-ding's" he sets up a block for the smoke to come out, or sets on a call bell for an engine bell. Perhaps he loads on various blocks for people, or his "teddy" and dolls. He is beginning to realize the joy of creation. One little girl when she was not quite two knew no greater triumph than "See baba do it self."

The baby's plays now will take several forms:

1. Experimental plays will continue developing his senses and giving him a knowledge of materials which will assure his control in their use later.

2. His imaginative and imitative interests will develop into representative plays, and later, where they follow a definite plot, into dramatic plays. He loves now to sweep, dust, telephone, stride "big" like father, trying by these acts to get at the experiences of the people about him who do these things. And now he is Peter Rabbit, squeezing under Mr. McGregor's gate, or Baby Bear, living through the whole story of the Three Bears.

3. He has his "stunt" plays, through which he learns to go up and down stairs "right foot, left foot," to skip, run, hop, walk a plank, and many others. This gives him bodily control and development.

4. Out of his aimless experiment plays comes now the beginning of a new

set of plays—constructive or “making” plays. These are of two kinds: (1) Making pictures which much later develop into various forms of fine art; and (2) making articles for practical use and beauty or the manual arts.

He has found around the age of two that he is a force which can make things happen. By his will a block house tumbles over, a clay ball becomes flat, a piece of paper is transformed into bits. During these periods from two to three he should find out that he is also a creative force, that in addition to power to change things he has power to create things. Now will develop a set of plays which we will call “constructive” handwork, block building, and so on. These constitute the subject of this article.

That form of imagination which can picture a costume, a machine, a finished piece of cabinet work, an artistic show window, is dawning at this period. Ideas in adults which can get themselves expressed by use of materials are beginning now to dawn in the child. The efficient house decorator has to have certain skills. He must have well-formed ideas of the principles underlying color combinations, space relations, effect of line; he has to exercise judgment in adapting these to the particular problem. He must know the qualities of materials, their cost and durability, and a number of facts based on study and experience. The same mental processes of forming an ideal, judging and testing the materials to be used and the ways of using them, of selecting from these with the ability to use them to execute the idea may be involved in making a pasteboard basket to be used by the child to meet some purpose. By these attempts he begins to form a judgment of his success in the same way that the decorator’s judgment is formed. A failure which spills all the contents of his basket over the floor leads to an examination of causes and another attempt to succeed. All these thinking processes are beginning to develop and should be exercised now if they are to persist and give the character development of which they are capable. Handwork (including building) is the only material which the child is able at this age to use to express his ideas, hence it is very important for him now. If he develops an ability to make desirable things with his hands he may have gained a source of pleasure for leisure hours in after years.

These wholesome occupations for idle hours may save him from the many temptations of the adolescent age. Boys and girls full of schemes they are working out have little time to follow the evil suggestions of their more idle friends. But even if the child turned later from pleasure in these manual activities to joys in other lines, the development of mind and character he receives now is of lasting value. This makes it imperative that the parent or guardian help him to get the most from his plays in the years under six. To establish the habit of self-employment and “busyness,” with a sense of self as a “person who can do,” is a real

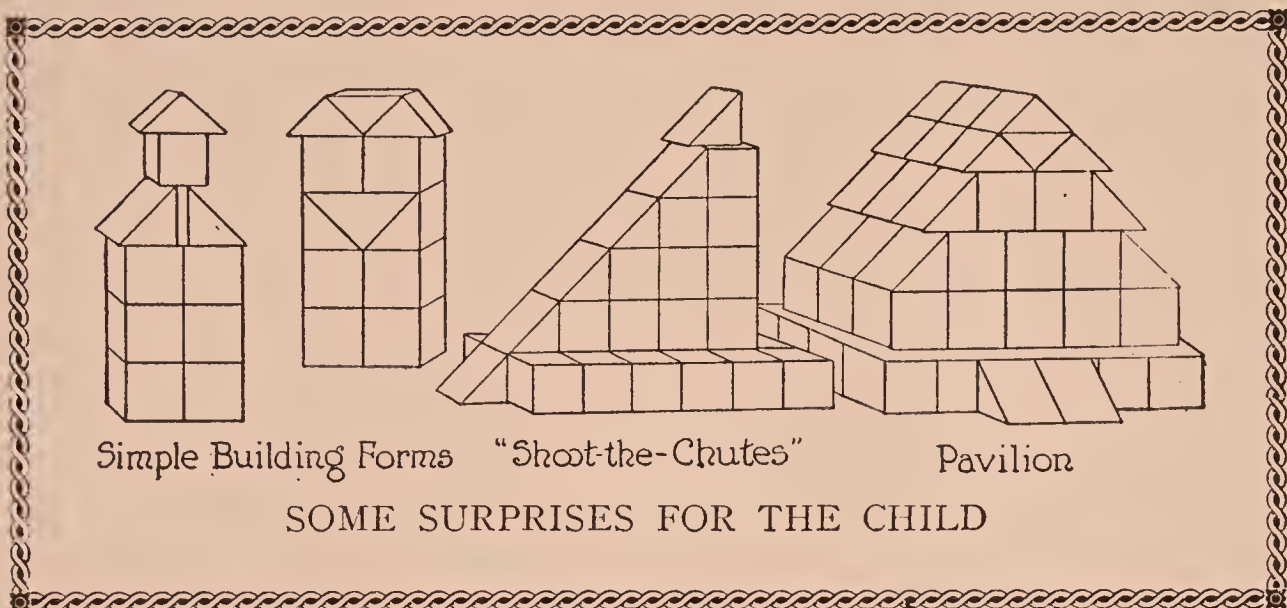
achievement. And if it develops that the natural inheritance of the child is such as to unfit him for great intellectual achievements, he at least is fitted to play a valuable part in life because he can contribute good work and happiness. He will be able to carry himself through life.

WHAT HAVE PARENTS TO DO WITH THIS?

The parent is not to turn over these pages, select an interesting thing to make, then show the child how to make it, or when he brings home a new toy immediately demonstrate its use. These methods are sure ways to kill childish independence. The long process of thinking, experimenting, trial and failure or success which is the value of the work has been done for the child. He has been robbed of his chance. This is why it may be possible that in the hands of some parents harm may come from such a set of books as this, which give so much suggestion to mothers that through misuse they may prove a means of smothering the child and making him dependent and helpless. It is to guard against this that every effort has been made to give the underlying principles; to help the wise parent to build well by using these pictures and charts only as sources of help (1) for the child when he needs it and appeals to the parent, and (2) for the parent to show him possible lines which the child's activities may follow. It will be a mistake to select any forms with the purpose of showing the child how to make them until the parent has thought the matter over and selects intelligently. These are a parent's duties:

1. To surround the child with plenty of the right material.
2. To keep "hands off" most of the time, allowing the child's experiments and ideas to control the use of material and devices.
3. Then when the baby is close upon something of value and doesn't recognize it, the parent may help him to do so. For example*: Betty cut the form of a girl's head from a colored card and brought it to her mother. There was little attempt to cut on the line. Betty was two and a half years old. Had she been four and a half, her mother would have discouraged such careless cutting. For a child of two and a half years struggling with the rudiments of scissors control the work was good. Mother said, "Wouldn't that make a nice dolly if she only had legs and arms?" Betty disappeared awhile and returned later with, "See dolly has a stummit." She displayed papers of all lengths fastened to suggest arms, body and legs. Her invention won praise and encouragement. A family of spidery dolls appeared with crude heads cut from white paper. "Dolls should be dressed," her mother commented. This led to an attempt at dressing. The attempt was not successful, but the idea stayed, and a few weeks later produced

*Author's Unpublished Records.



a dress as crude as the dolls. The mother must always see possibilities and offer suggestions; she must rarely show how.

4. Sometimes, after the child has become fairly well acquainted with the material, the time comes when the parent should show *how*, in order to open up new possibilities for the child. The baby loves to have mother or father sit down and "show how." Often this is the best done by showing the result, a house of blocks ready built to give the baby the idea. Then the house may be taken down, and block by block, baby imitating with his blocks, block by block, may learn to make one just like "daddy's." To learn to imitate is a real problem and requires much patience and simple directions from the parent.

Again after the little one has learned to use his blocks well, a reward for a nap or a surprise in the morning may be a house, wagon or train, all built, which baby will want to copy. Imitating the finished result when the process is unseen is a harder task, requiring a great deal from the baby.

5. The parent is also needed to help the child test the results of his work. Perhaps the basket he has made is not as good as he is able to make; perhaps its corners are not pasted straight or securely. To find fault or criticize may discourage further attempt. An effort to carry a cookie or cracker in it for a play picnic may reveal its faults without a mother's comment. A bed out of due proportions may be much improved when the child discovers that dolly's feet stick out. The use of the object for the child is his natural test, and this should be the standard by which he judges. Later beauty will be added to utility. Beauty will call for neatness and, eventually, decoration.

6. Supply him with toy dogs which need houses, a doll which must have a

table, chairs or bed; a lion that must be caged, a horse which must live in a barn and be fenced in a pasture; pictured cans of fruits, bread, apples, paper milk bottles which must be delivered in wagons, and so on. These lead to other activities in his attempts to represent the activities of real life.*

7. Keep him from discouragement, and encourage persistence. Frank frequently worked at things, but gave up too easily. One day he had worked to build a bridge and had nearly succeeded when the whole thing tumbled over and he was ready to give up.

"Dear me, what an accident. Anybody hurt?"

"Yes, a woman got hurt."

"Well, you'd better send for an ambulance and get a doctor."

The new idea struck. He hurriedly turned his blocks into a wagon, made a paper doll to place inside, and a doctor. One thing suggested another until he had found how to make the doctor's case equipped with bandages and a bed in which to put the patient.

"Now send for the wrecking crew and repair the bridge."

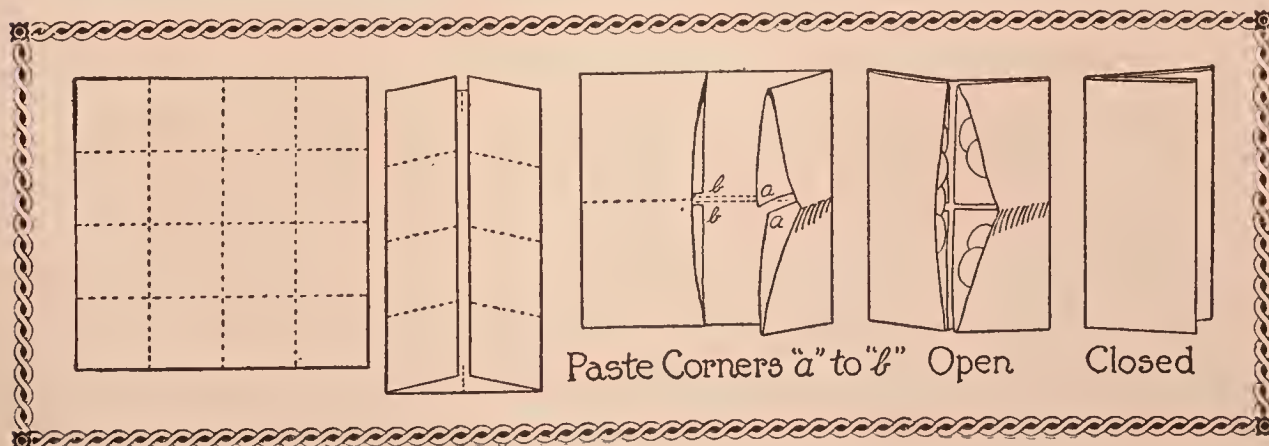
This was done; the bridge was successfully rebuilt and Frank went to lunch glowing with pride in his achievements.

METHODS THE CHILD WILL USE

1. Always at first he will simply experiment. Paper and pencil means scribbling; paper alone, tearing; scissors, snipping and cutting. Blocks will call for piling up and knocking over; clay, punching, poking, squeezing, pinching off into bits and patting; paints, daubing, streaking and scrubbing.

2. Accidentally he stumbles upon an idea which leads to something he can make. These destructive activities will be turned into constructive ones. To

*A paper or pasteboard horse cut to stand up may always be had at no cost. Pictures for this purpose are put in Poster Supplement for tracing.



help him find a play use for what he makes will strengthen his attempt to construct.

3. Now he begins to look about him to get ideas of things to make and ways to make them. He will copy methods others employ in doing things, and try to copy models he sees in store windows, also pictures from books, and so on.

4. Then he thinks of things to make without models to copy. He invents a box, a medicine case or a pocket book he needs for play, and sets about the manufacture of one.

CAUTIONS

Reference has been made to the deadening effects of parents doing too soon what the child might find out for himself. In addition, here are other cautions:

1. Do not give him dangerous things to play with, such as sharp-pointed needles, scissors with sharp points; beads that are too small to string without strain to the eye; sewing cards which demand too exact coördination between eye and hand.

2. Do not encourage things beyond his power to execute; it leads to discouragement or fatigue and nerve strain.

DRAWING

Drawing, as we have said, starts with scribbling. It will be far better for parent and child that his scribbling is done on paper and not on walls and books. See that he has an unlimited supply of paper, always accessible. Wrapping paper, cast-off writing papers, the manila slips from the shredded-wheat boxes, newspapers and, of course, a blackboard and crayons. When he can get at these things, see to it that every scribbling offense on walls or elsewhere is punished. This interest must have a legitimate outlet.

Scribbling as a means of developing drawing activities may also be employed for the arm-and-hand movement necessary for beginning writing. Both for drawing and penmanship scribbling has its uses in the early stage.

MATERIALS

1. Large manila sheets, often hung up on the wall, secured by thumb tacks or spread out on the floor or table. Large marking crayons.

2. Oblongs of paper at least 12"x10", used on table or floor with large crayons.

3. Blackboard and chalk.

4. The manila slips which come in shredded-wheat boxes.

Children love to have stories told to them as parents draw the pictures. This is fine amusement, provided one of two things doesn't happen:

(a) That the picture suggests only one way of drawing a man, and so binds the child to copying this way only.

(b) That the perfection of the picture is not such as will discourage effort on the child's part to draw his own pictures of the same idea.

It is wise to urge him to tell you picture stories and show real interest in his attempts, getting him to explain what he has tried to tell by his drawing.

CUTTING

Cutting starts in the same way as drawing. It is really a difficult thing for the child to gain control of scissors. There must be an effort on the part of the parent to turn what is naturally destructive activity into productive; this suggests the use of the baby's snips and bits for various purposes. Do not encourage line cutting at first. When control of the scissors suggests that the baby is ready for line cutting, use only wide, straight lines, such as cutting straight paper strips for chains and large pictures for the scrap book, with straight edges. Cutting on curved lines is quite difficult, and comes much later.

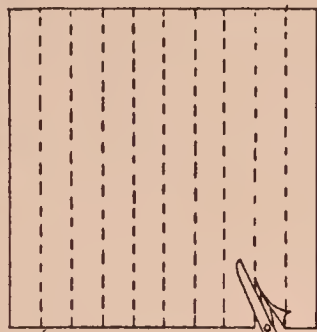
Uses for Snips and Strips. A child may cut a plate of snips to use for feathers to be stuffed in a salt bag for a doll pillow or mattress. Make lots of "snow" to shower down on a big sheet, or to be used again and again for a "snow storm." Such bits of paper may also be used for food to go in dishes for dollies' dinner party.

Strips can be used for paper chains. Pasted upon a broader piece of paper for body and another for head, they serve for an animal or for a doll's legs. Often they may be used for picture frames or window frames in the scrap book, adding to practice in cutting that of pasting.

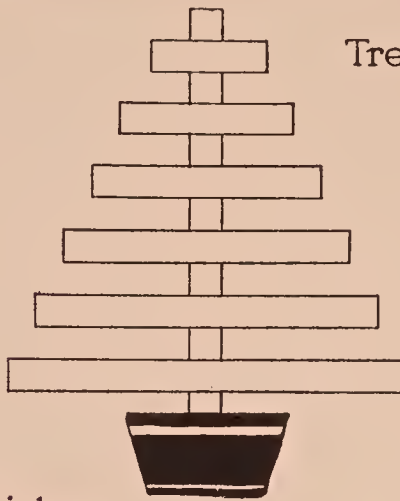
Free Cutting. Whenever an accidental form resembles a shape praise it and encourage the child to cut another. This will encourage free cutting. He stumbles on a form that he names a shoe, a ball, an apple. Suggest his making a mate for the shoe, more apples and another ball. Ask him to use his crayon and paper to make a large piece of red paper to cut his apples from; some purple, for his plums; orange, for oranges; and yellow for a banana. The changed shape from round fruits to a long banana adds skill in noticing form and in cutting it.

SCRAP BOOKS

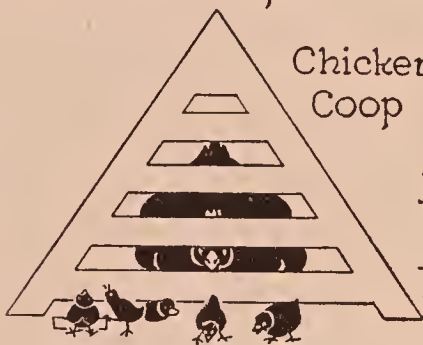
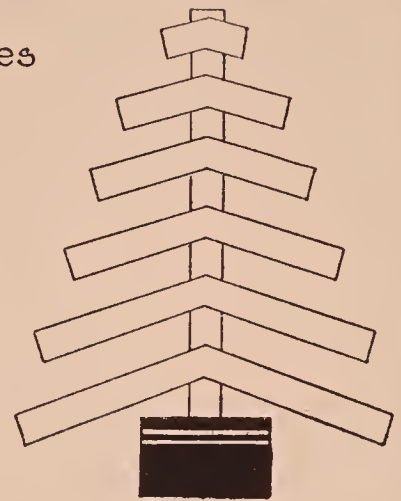
Book-making begins now, and may be made to develop through years to come into a real art. The first books are made from cambric or large wrapping paper fastened together by machine stitching or the mother's hand sewing. Books serve an endless number of purposes. There are books for pictures and post cards,



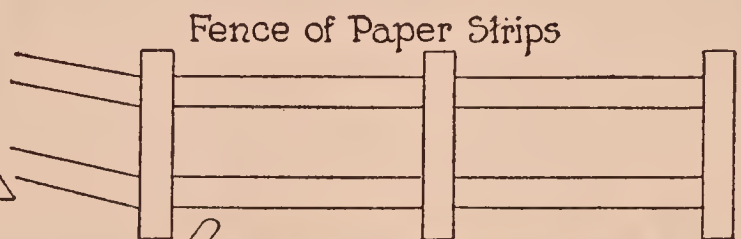
Cut Strips
of Colored Paper



Trees



Chicken
Coop



Fence of Paper Strips



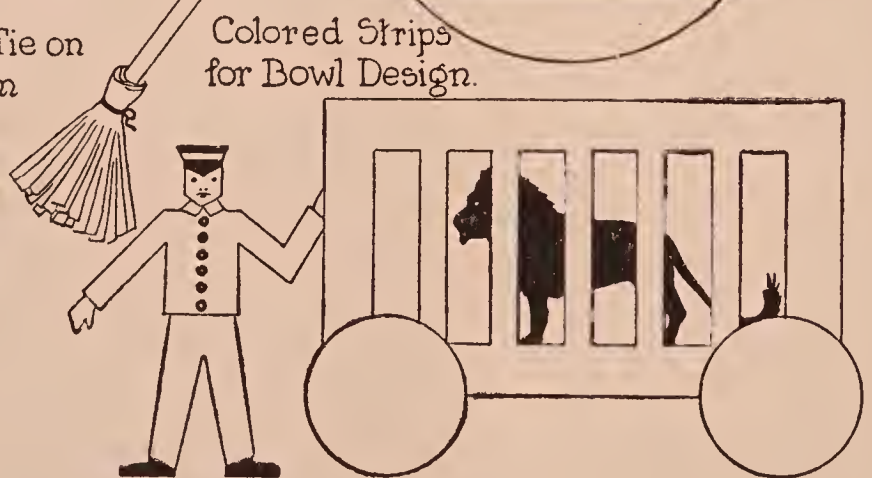
Cut Strips and Tie on
Stick for Broom



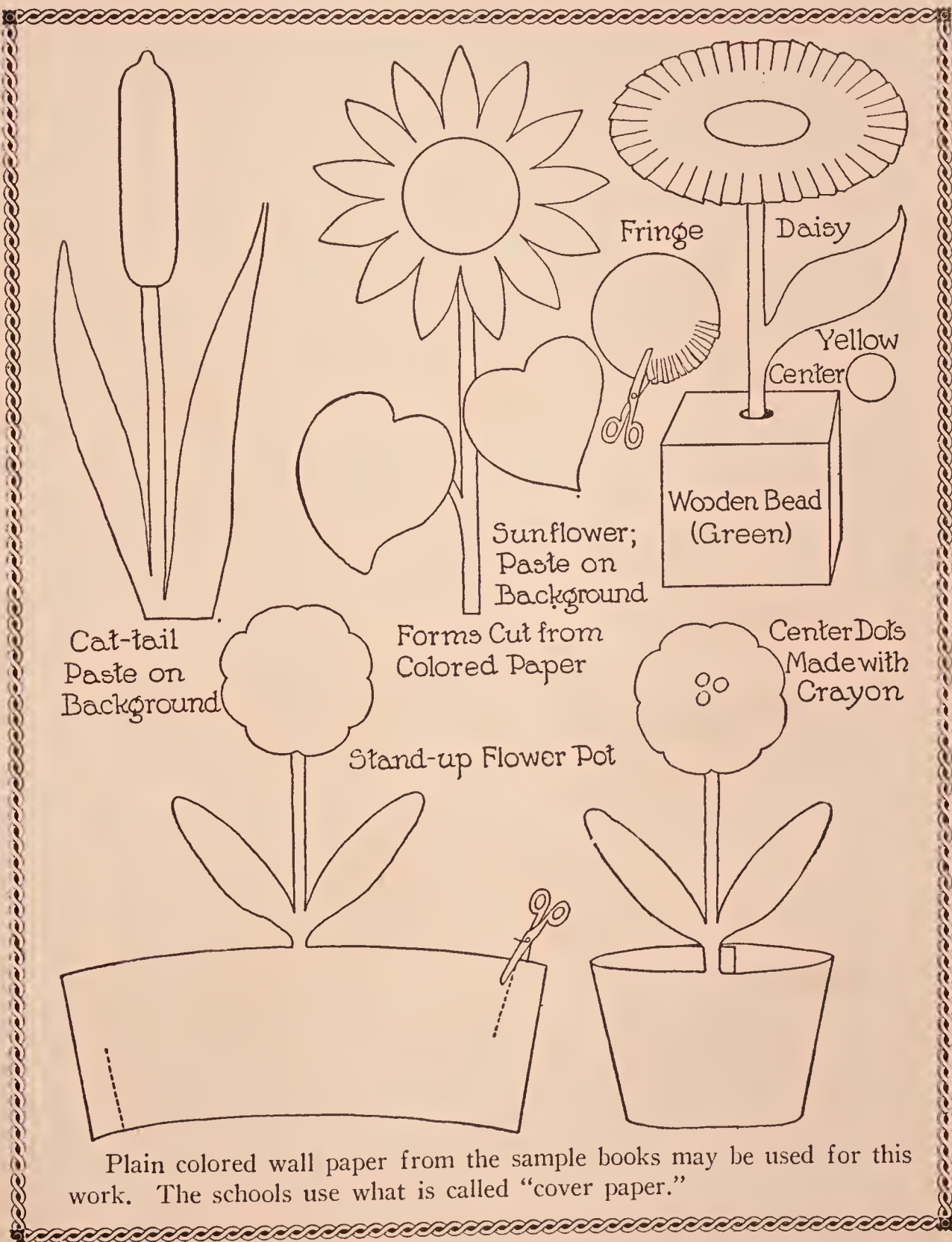
Colored Strips
for Bowl Design.

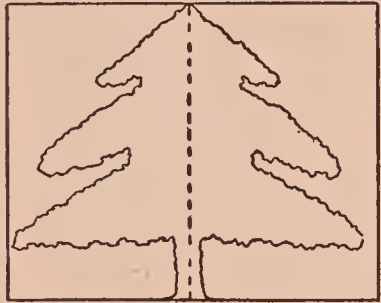
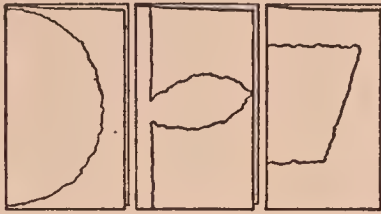


Milk Pitcher.

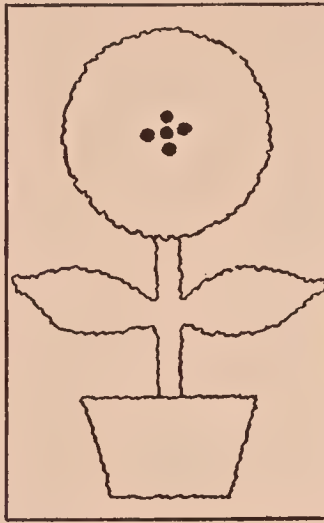


STRAIGHT LINE CUTTING.

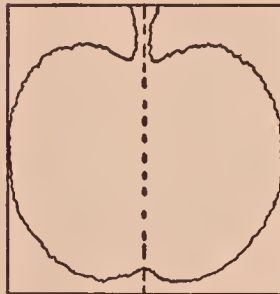




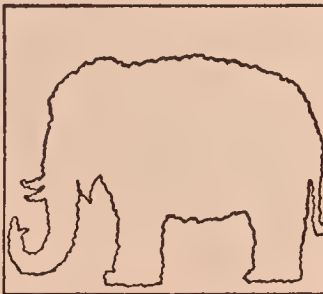
Fold Paper and Tear
in Center



Mount on Colored Paper. Use Crayon
for Flower Center, Hat and Face of SnowMan



Apple



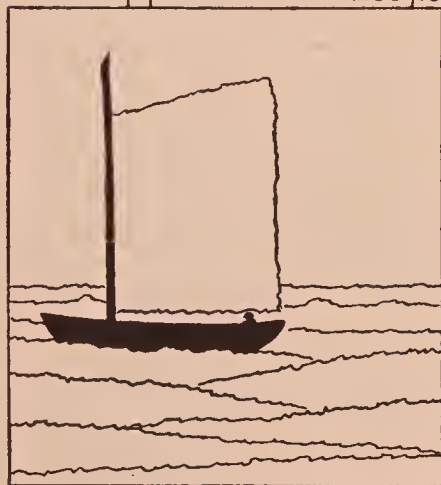
Elephant



Dog



Tree

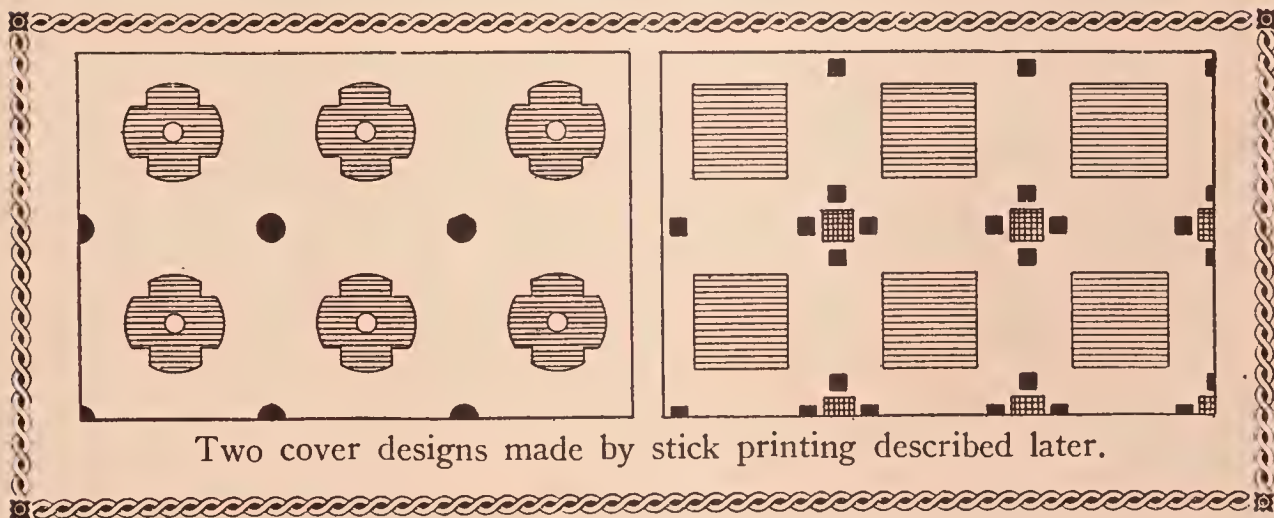


Pictures Made of Colored Paper Torn and Mounted on Background

Paper tearing is easier for the young child because it does not involve the complex technic of using a tool.

later for pictures telling the story of bread, foods, coal, milk, Easter, Thanksgiving, and the long chain of story picture books; for stamp collections, kodak pictures, blue prints of leaves and flowers; books to hold the child's stories he first dictates, then writes himself; his little poems and books which are called house books work out principles of house decoration and furnishing.

The Child's Problems. The problems of the first books are merely those of pleasant arrangement and neat pasting. Gradually the child becomes interested in folding papers himself to make his books, bringing to notice the difficulties of good edges and secure fastenings. Then come cover designs, and last of all, the complicated science of artistic decoration and binding, which may involve all sorts of real art. There are so many uses for books that this activity may be encouraged often enough to bring the whole development in the course of time to any one child.



BLOCKS

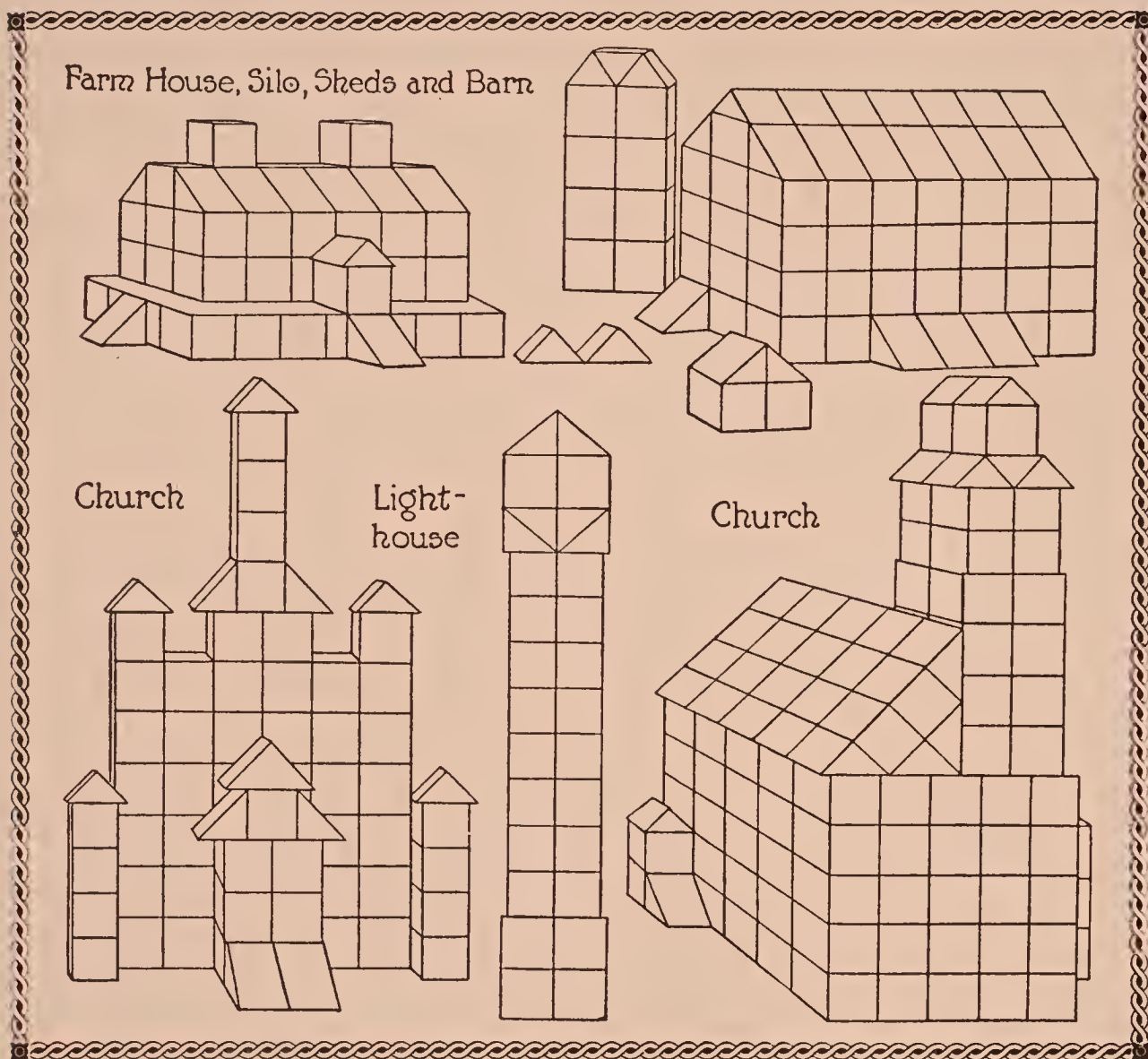
Very large, or floor, blocks are better than small ones to give the little child, for the following reasons:

1. They are large enough to require two hands in placing, hence the large muscles are brought into action.

2. They stay "put."

3. They require the child to get up and down on the floor; thus he exercises other than arm muscles.

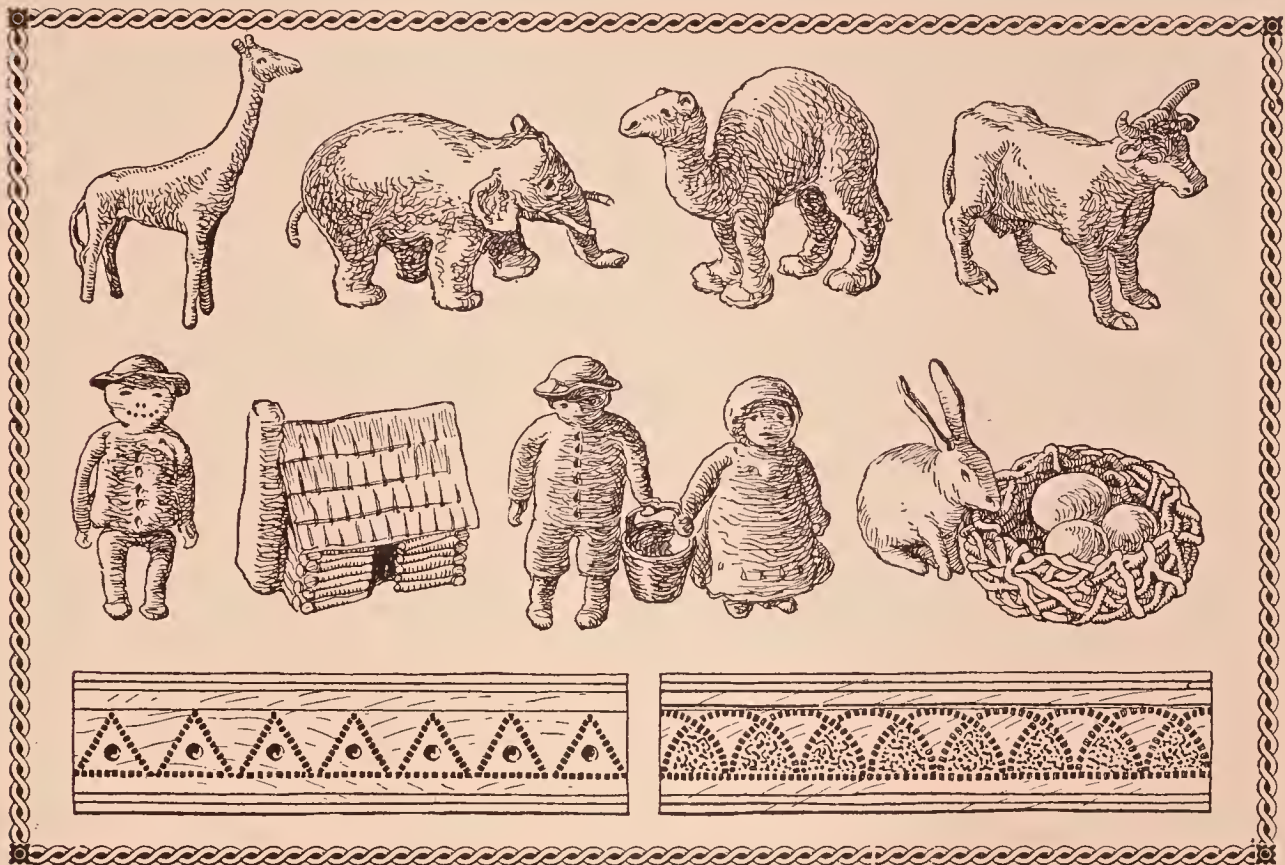
4. They are good for making forms big enough for other toys to go in, even for the child himself sometimes to use. Ideal blocks are large enough to make a chair, a bed, a table, or steps for the child to climb. Real use encourages building.



Oblongs and cubes are the most desirable shapes to use for a long time. These, with various light-weight boards or beaver board for floors and roofs, make fine houses, tunnels, bridges and tables. Two-by-fours planed carefully and then cut into oblongs 4, 6, or 8 inches long and four-by-fours cut into cubes make fine blocks. Other dimensions may be used, but you will pay dearly for your set unless you realize that by starting with the lumber already cut at the yards you can save labor cost.

Wagon forms, boats and boxes may be held together and shoved around if the mother will tie a cord securely around the mass, leaving an end for pulling. Paper dolls and real dollies and "teddies" can ride in these wagons.

If small blocks are used, do not use any smaller than 2x2x2 cubes or 2x4x1



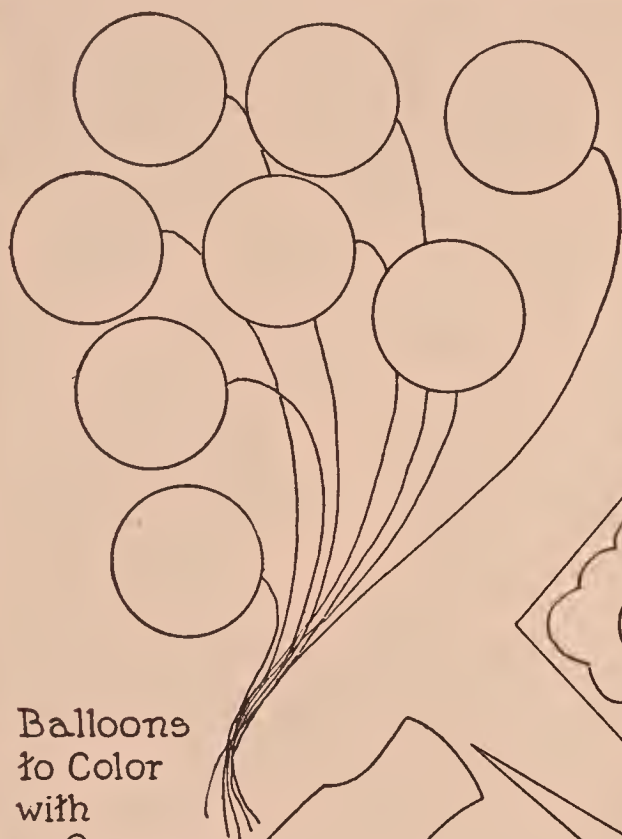
oblongs. Sets of these may be bought in cherrywood boxes from Milton Bradley Co., New York and Boston, or Thomas Charles Company, Chicago.

MODELING

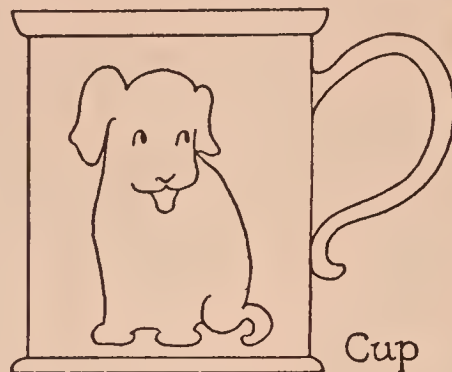
Clay and plasticine are the best materials to be employed in the child's crude modeling. Bits of such material drop on the floor and are crushed in or make grease spots, so this activity is a real trial to the housekeeper; but its value to the child is so great that any mother should find a way to manage the housekeeping end to afford the child this benefit. Oil cloth spread on the table, papers laid on the floor and the child allowed to carry his clay figures about only on a tray to catch bits that crumble off, are some suggestions which may be adopted.

Little children particularly enjoy clay, because the plastic material changes so quickly before their eyes. Their first forms are "snakes"—long rolls of clay; then, little cakes and balls. If clay is used, they like to run toothpicks through the balls, to make beads. When these are dried they may be painted and strung on a stout string, to make a necklace.

For many things to be made, places to buy clay and plasticine, and the care of these, see the section on clay in Miss Barbour's article on handwork for the four to six-year-old child.



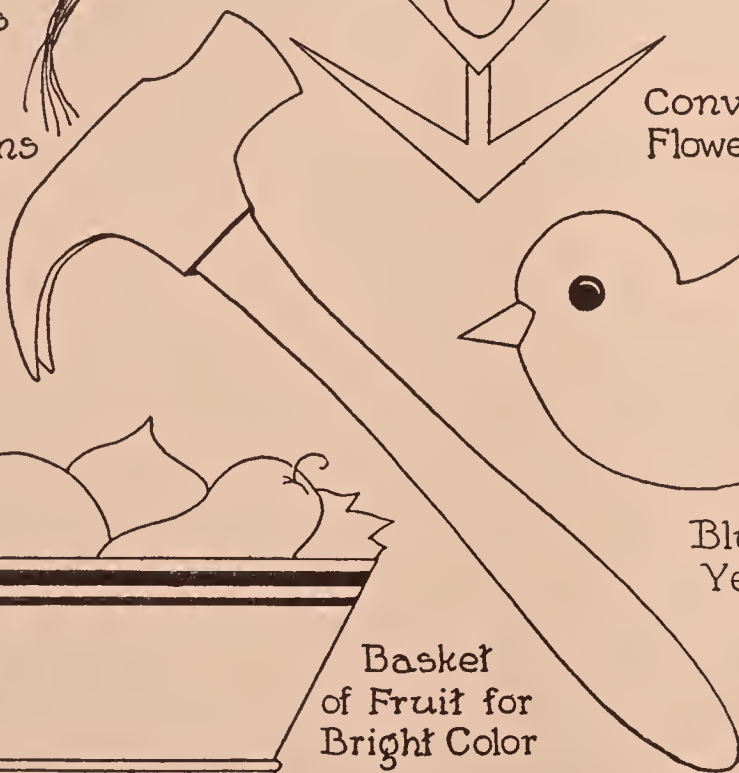
Balloons
to Color
with
Crayons



Cup



Conventional
Flowers to Color



Hammer
with Red Head

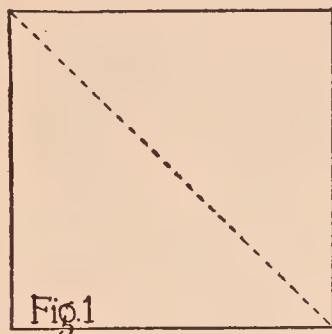


Basket
of Fruit for
Bright Color

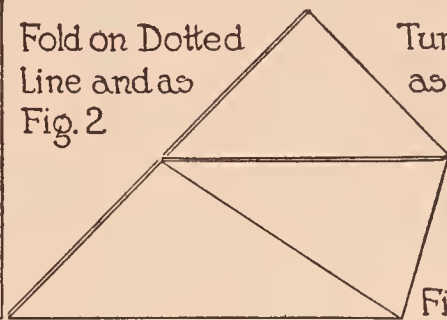


Blue Bird with
Yellow Bill

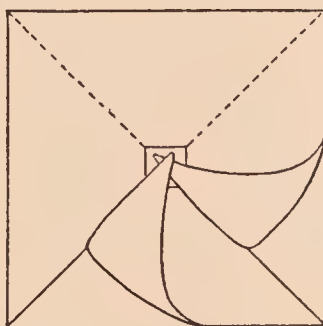
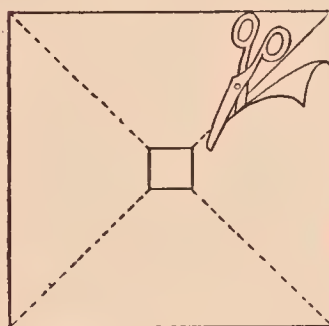
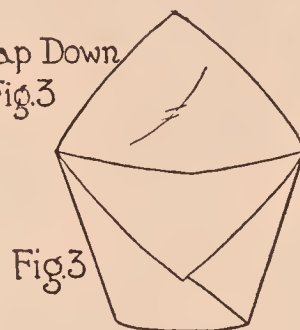
Designs which may be made with colored paper and cutting, tracing and crayoning of outlined filled in with paints.



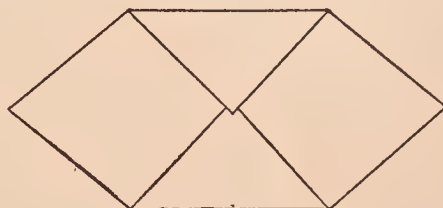
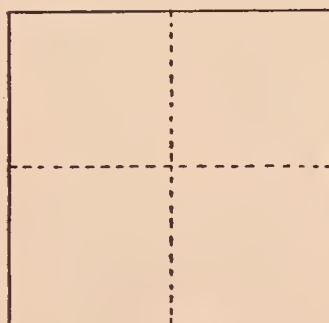
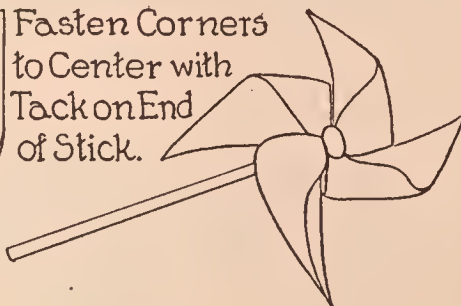
Fold on Dotted
Line and as
Fig.2



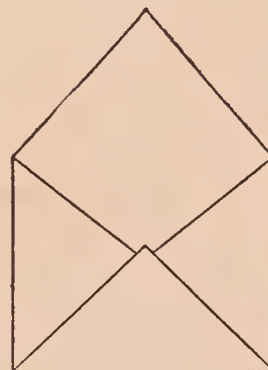
Turn Flap Down
as in Fig.3



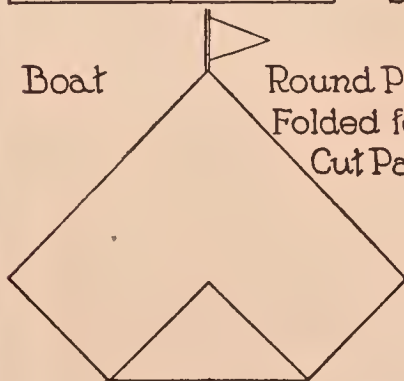
Fasten Corners
to Center with
Tack on End
of Stick.



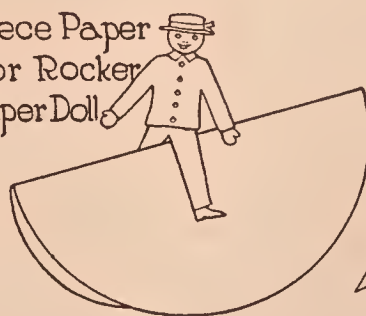
Fold Corners to Center; Leave
One for Flap of Envelope.



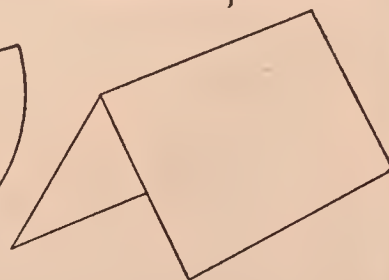
Boat



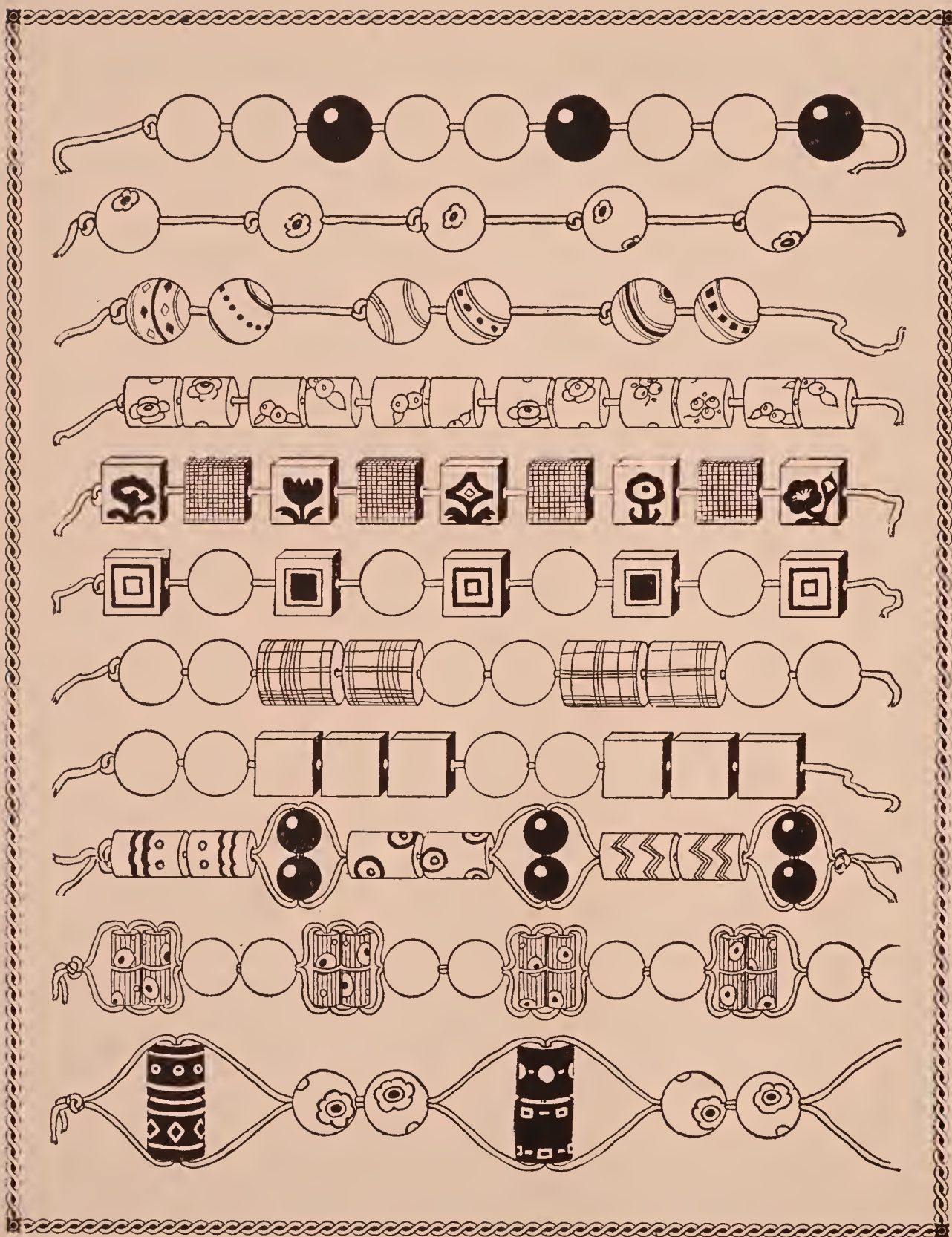
Round Piece Paper
Folded for Rocker
Cut Paper Doll

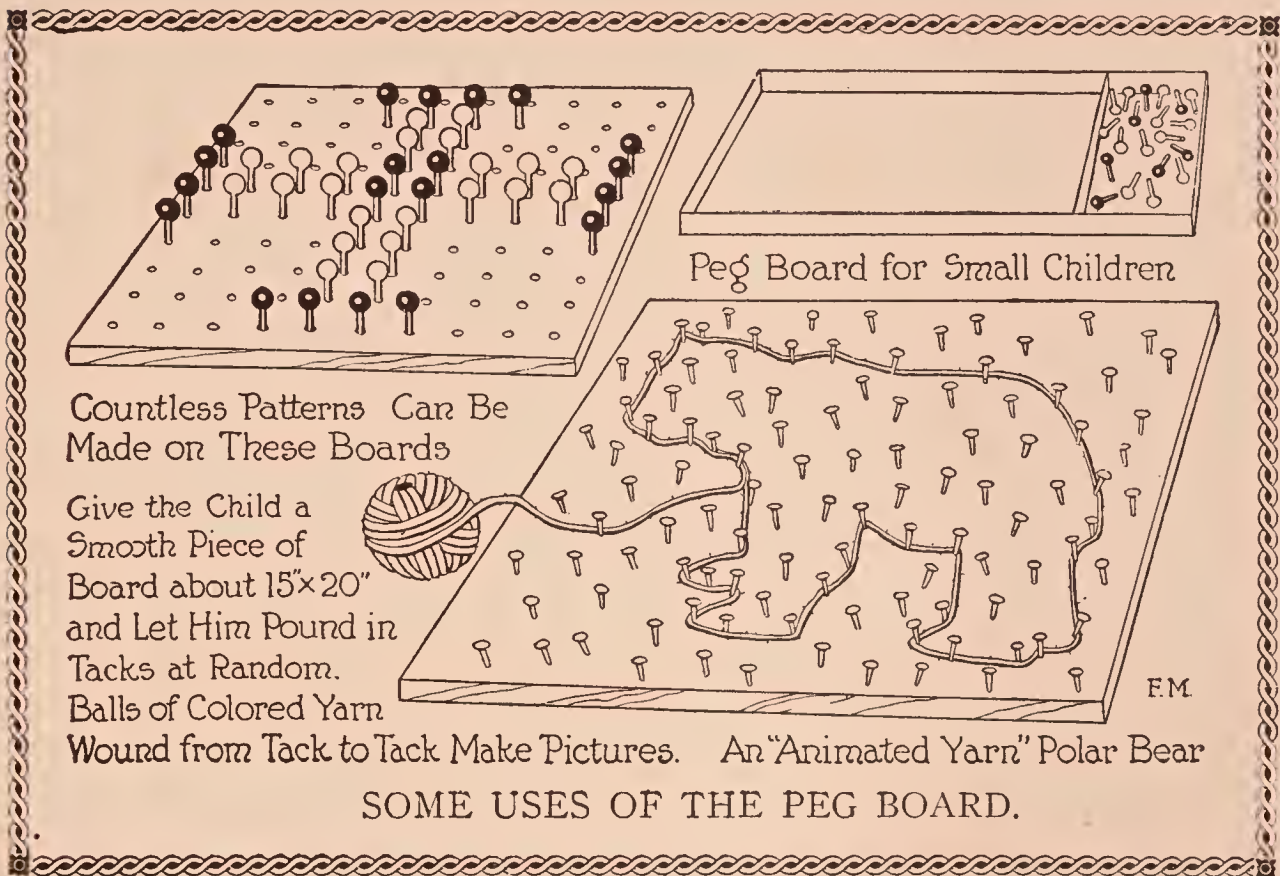


Folded Paper Tent



SOME FOLDED FORMS THE CHILD CAN USE IN HIS PLAY.



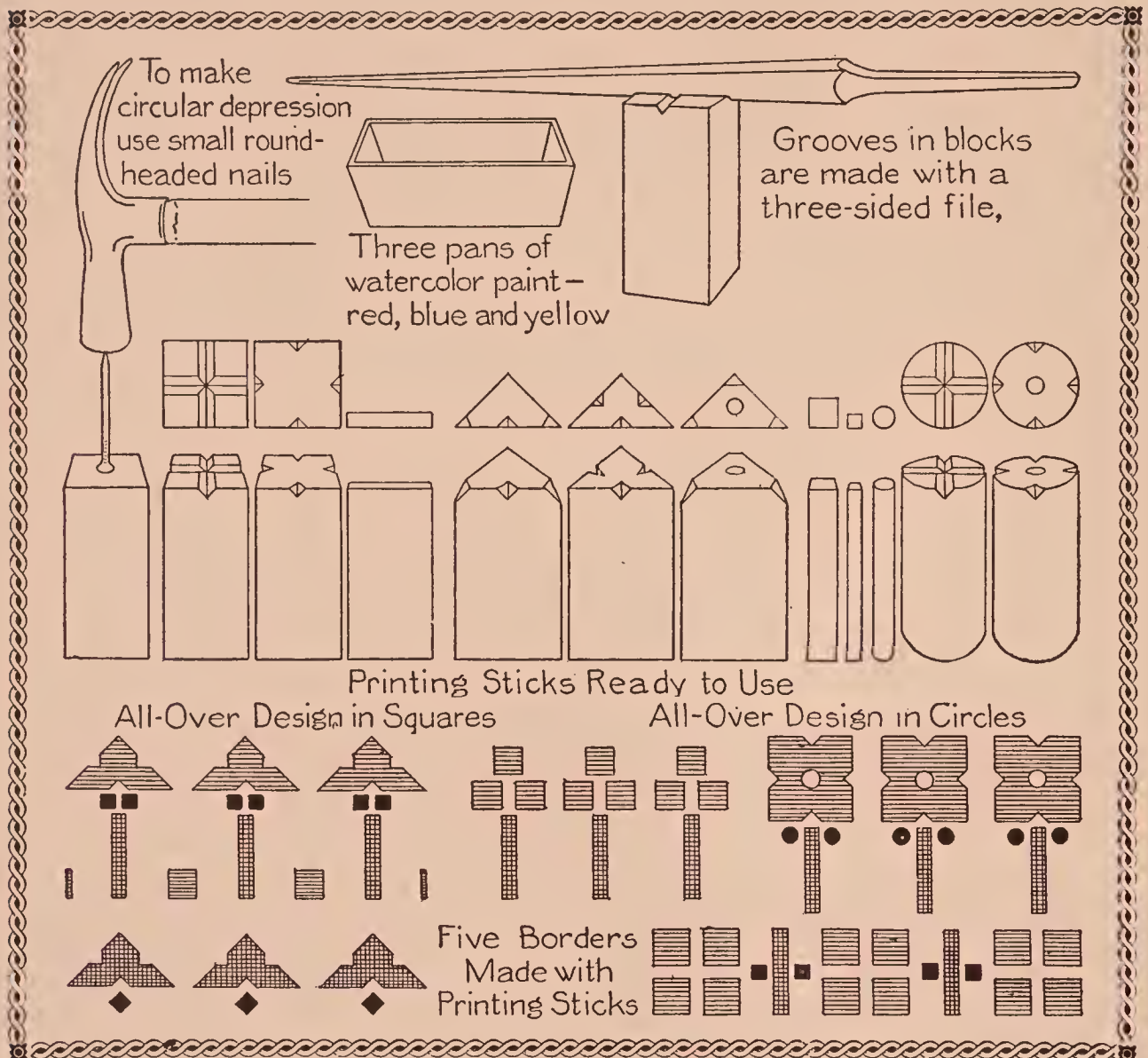


BEAD STRINGING

Materials: Very large glass beads to be had in the department stores strung on a heavy double thread threaded through a blunt pointed tapestry needle. These also may be had from the dry goods store. They give pleasure to children. These and the wooden kindergarten beads may be used to develop ideas of number, form and design. The wooden beads come in two sizes of balls, cubes and cylinders, $\frac{1}{4}$ inch in diameter, or the same forms 1 inch in diameter. Both sets have six colors in each form—red, yellow, blue, orange, green and purple, and are strung on shoe strings. Mothers will find these to be valuable playthings for the very young child.

PEG BOARDS

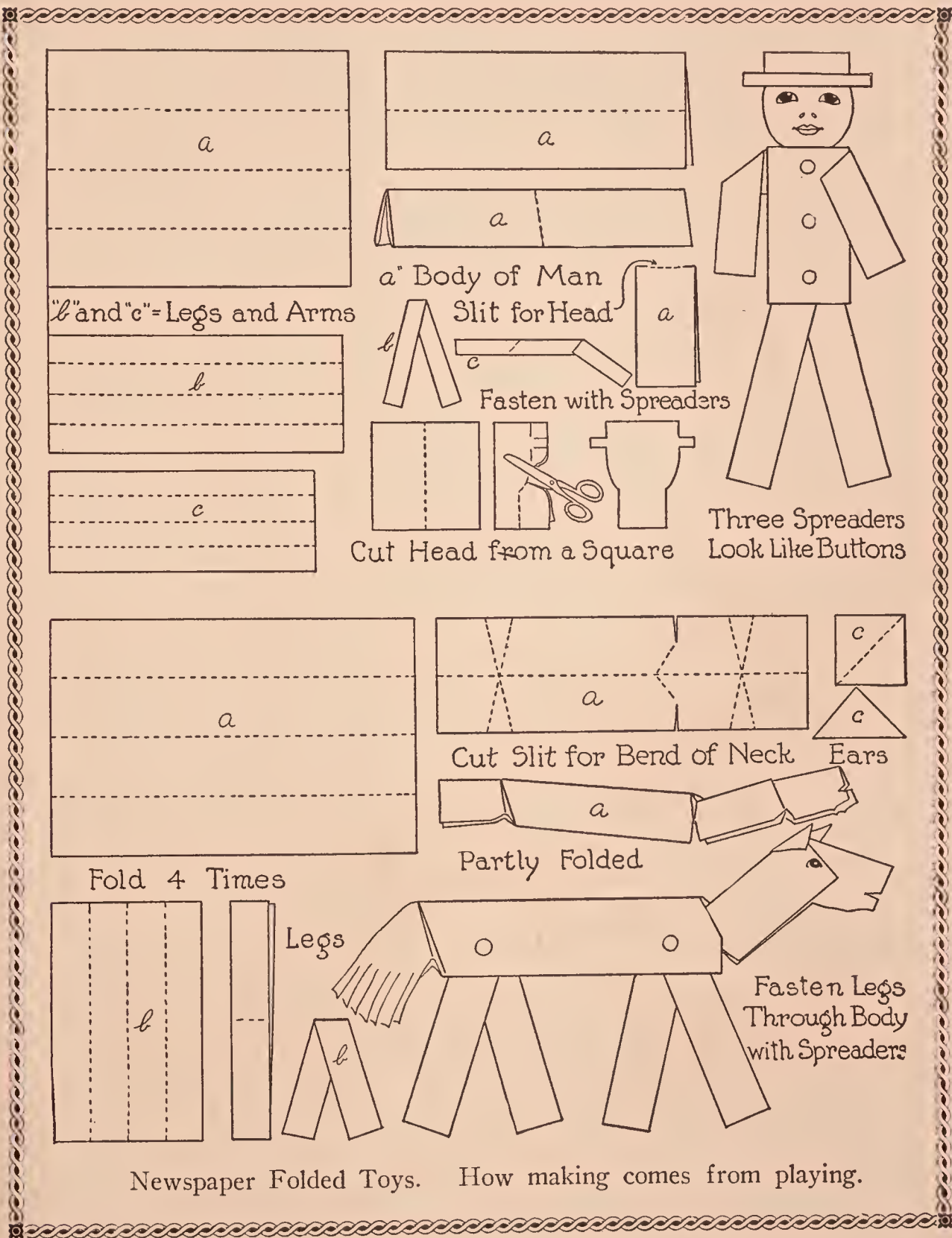
Children find valuable occupation using the wooden beads with peg boards. These come in two sizes, large and small. After the pegs are in place the beads may be put over them to form designs, walls to a doll house and other pictures. The peg boards are sold at most of the toy stores, or they can be ordered through such stores.



DESIGNS WITH STICK PRINTING

Stick printing is a very ingenious method of ornamentation and one that should arouse in children an ambition to create artistic effects. The requirements are shown in the picture above. In the center of the picture are short sticks with originally smooth tops, on which designs are cut. A file, some flat-headed nails and a hammer are all the tools that are essential in perfecting the designs. The lower part of the illustration presents some suggestive patterns.

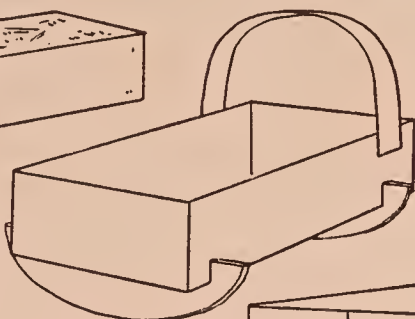
Stick printing is valuable for ornamenting borders on booklets and the like. To get best results, color work is quite essential. Paint in the three primary colors, red, yellow and blue, will produce any secondary colors that may be desired.



MORE TOYS FROM WASTE MATERIALS.
MATCH BOX TOYS.

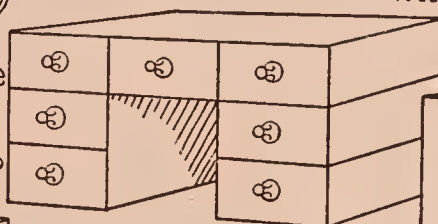


Cradle. Cut
Rockers to
Fit Inside of
Match Box.

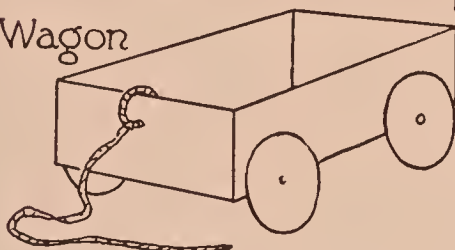


Wheelbarrow Made
with Inside of Box

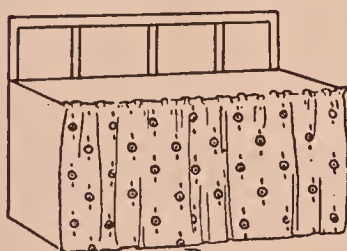
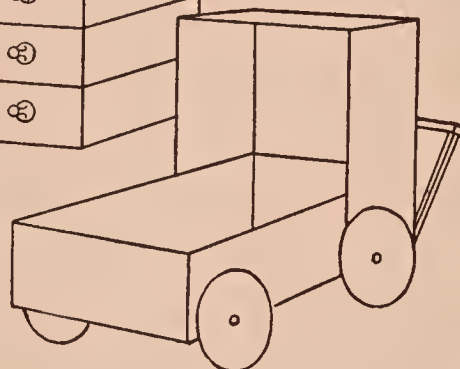
For Desk Paste
Seven Boxes Together. Use
Collar Buttons for Handles



Wagon

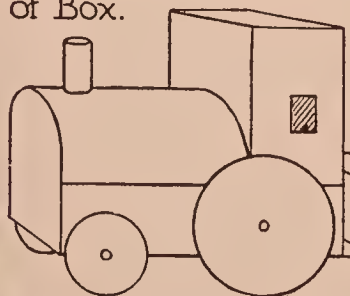


Use Top of
Box for Hood
of Baby Cab

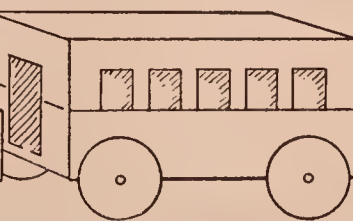
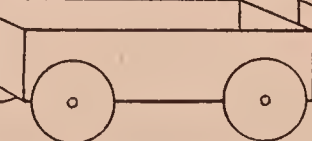


Bureau

For Engine, Slip Top
over End of Bottom
of Box.



Curve Paper over Front of
Engine. Roll Paper
for Smoke Stack



Two Upright Boxes
for Milk Wagon. Extra
Pieces Top and Bottom.

Use Two
Boxes for
Car. Cut
Windows



Esthetic Development of Little Children

JULIA WADE ABBOT

AS a child's appetite for the right kind of food may be trained and developed, so may his love for beauty be fostered by the thoughtful mother. But esthetic appreciation is a development, and must be based on the different interests that children show at different stages. The tastes of young children are very crude. They love noise and bright colors, and they tear flowers to pieces. But even in very little children there are certain interests upon which may be built a love for beauty in nature, in music and in art. The baby's delight in bright, shining objects grows into the two-year-old's interest in watching for the moon in the sky. Still later, there develops an interest in the stars and the changing phases of the moon. Baby's pounding with his rattle may at first be mere delight in noise and in vigorous activity, but the succession of sounds made in pounding, the recurring motion of hand and arm, may develop into rhythmic action. The sounds he makes as he experiments with his voice grow into talking and singing. A very direct approach to art lies in the child's interest in pictures. His joy in color is another avenue to art appreciation and also nature appreciation. His interest in collecting stones and pebbles, and plays in sorting and arrangement with this collected material, is still another approach to nature appreciation.

In young children, then, the following interests serve as the basis for the development of esthetic appreciation:

1. Interest in making sounds.
2. Interest in listening to sounds.
3. Interest in rhythm.
4. Interest in colors.
5. Interest in arrangement.
6. Interest in decorating.
7. Interest in collecting.

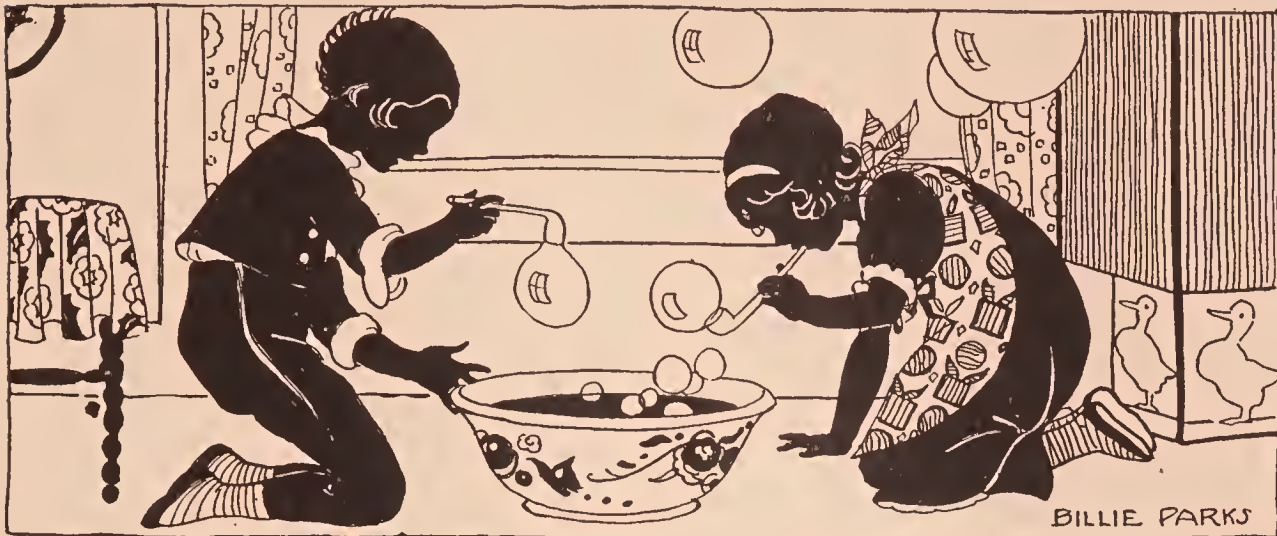
Development of Art Appreciation. Children should be provided with experi-

ences that satisfy their love for color. The furnishings of the young child's nursery, the clothes he wears, the toys he plays with, may all contribute to a development of the sense of color. Among his first toys should be some colored worsted balls. Young children are particularly fond of red and orange and purple. Later, he will enjoy stringing large colored wooden beads and arranging painted blocks in their square box container. The chapter on handwork will suggest what an important element color is in the use of materials.

The procession of the festivals through the year are symbolized by the varied colors always associated with them. The red and green of Christmas, red, white and blue of the national holidays, colors that suggest spring flowers at Easter, orange and black for Hallowe'en, all give opportunity for varied arrangement and decoration. Children can help prepare for family gatherings and parties. Appropriate table decorations, the arrangement of flowers, and the making of place cards give fine opportunity for real art training. It is well to remember that children are doubly interested in any festivity where they are allowed to participate. Too many elaborate things are bought by parents for children. "By the children" as well as "for the children" should be emphasized in family life. For example, children will be very much interested in dyeing their own Easter eggs, and the dye that is left over may be used in coloring pieces of cloth to make into doll clothes.

Children should be allowed some choice in regard to their own clothes. If a child is specially fond of yellow, there is no reason why that particular color should not be used for some of her own dresses and those of her doll. If rompers are to be made from pink or blue gingham, and Billy is very fond of pink, why not give him a choice? Within the limits of price and suitability, children should be encouraged to express their personalities through their surroundings and what they wear. Far from making children vain, this is the best way to develop good taste and that unconsciousness which comes from knowing when one is suitably dressed. Besides having some choice in the matter of the clothes they wear every day, children should have a box of clothes and ornaments for "dressing up." Cast off finery, dyed cheese cloth and collections of other things dear to a child's heart will be in this chest. In "dressing up," the children can indulge themselves in color combinations which could not be permitted in ordinary society. Children of five and over are also interested in making costumes. Indians are an all-absorbing theme for childhood, and riotous color can be used in making their costumes and head-dresses. Charades give an opportunity for other types of costumes. In representing kings and queens, some ingenious children represent ermine by daubs of blacking on canton flannel.

With the younger children there are color plays which give great pleasure. If a prism is hung in the sunlight in the nursery window, the children will delight



in the vivid color thrown on wall and floor. Children will enjoy blowing bubbles and seeing the same lovely rainbow colors float in their round surfaces. When nature paints a rainbow in the sky, children will be much more awake to its beauty because they have had the more intimate experience with the prism and the soap bubbles.

Children should have some opportunity for expressing themselves in the rooms in which they sleep and play. The best kind of wall paper for a child's room is not the figured kind, but a paper of a soft, pleasing shade that will provide a contrast for hangings and pictures. Colored chintz with warm, bright colors will tone in with such a paper. There should be few pictures in a child's room, and only two or three that are hung there permanently. A burlap screen, or a framed oblong of cork board, or a picture frame that is made so pictures can be changed from time to time, will give an opportunity for variety. As pictures of different subjects, pictures varying in form and color, are introduced from time to time, the child will find his interest heightened and will begin to feel a companionship with them. Magazine covers are an excellent source for unframed pictures to be placed on screen or bulletin board. Pictures of the changing seasons may awaken the child's interest in the beauty of nature. He will enjoy such pictures as those of Jessie Wilcox Smith, where little children are shown engaged in the same experiences that he enjoys. The picture of the little girl painting a heart valentine, children saying grace at Thanksgiving, or the Christmas pictures will make interesting spots of color on the screen in the child's room, and he will begin to think of pictures as an interpretation of his own experience. Relating pictures to one's own life is a step to having pictures open our eyes to the beauty around us. Besides, in childhood one may begin to learn to "read" and interpret pictures, which is an accomplishment all should possess.

Colored prints may be secured from Albert Bonnier & Company, 361 Third Ave., New York City, and the Seeman prints may be secured through art dealers. These prints cover a large range of subjects that are of interest to young children. Pictures of the family, pictures of industry, lovely landscapes with field of bright-colored flowers, night pictures of moon and stars, are represented in good form and color. The National Child Welfare Association, 70 Fifth Avenue, New York City, publishes some large colored pictures suitable for framing; the subjects are the popular old fairy tales.

A child's picture books are a gateway to art, and should be chosen with care and discrimination. There are so many beautiful illustrated books for children published at the present time that there is no excuse for buying books that contain ugly, grotesque and poorly-drawn pictures. Such books as the Caldecott picture books, *Under My Window*, and other books illustrated by Kate Greenaway, the *Child Garden of Verses*, illustrated by E. Boyd Smith, Hawthorne's *Wonder Book*, illustrated by Maxfield Parrish, and Beatrix Potter's *Peter Rabbit Series* will become precious possessions not only for their literary content but for the beautiful form of the books themselves. There should be low shelves in the child's room where he may keep these treasures as the nucleus of his own library.

For the very young children scrap books are delightful. The interest of the two-year-old in animal pictures, the growing interest of the three-year-old in trains and automobiles, the pleasure of the four-year-old in pictures of little children dressed in pretty clothes or in pictures of bright colored flowers may form the basis of a collection of pictures in the scrap book. Later the child may be encouraged to collect his own pictures and paste them in a book. The child of five or six will enjoy making these books for younger brothers and sisters, or for children in hospitals. The sorting and arranging of the pictures will furnish good training in art, and the motive will add to the interest.

Nature Appreciation. It has been suggested that pictures are one means of opening children's eyes to the beauty of nature. But pictures and books can never take the place of real experiences. At the seashore children collect colored pebbles and shells of many shapes. The child of two and three will spend hours in putting pebbles and shells in and out of his pail. The older child will enjoy making cakes and patterns in the sand with the imprint of the shells. In the country, collections are made of acorns, rose hips and other berries and colored leaves. Children enjoy stringing nature material. Necklaces may be made of hollow grasses or straws and strung with seeds and berries. Dandelions and daisy chains and leaf chaplets may also serve as adornments.

Enjoying nature precedes the scientific study of nature in a child's development. Long before he is interested in information about the changing phases of

the moon, he watches for the baby moon in the sky, and sees the man in the moon when the full moon appears. The bright and shining stars are friends and companions. That this is a natural attitude in young children is shown by the verses that have been written about this phase of experience, "Twinkle, Twinkle, Little Star," "God Sees the Moon and God Sees Me," "Sleep, Baby Sleep," and many other songs and verses have been written for little children on this subject. Children under seven should have these verses read or sung to them as one approach to nature study. The scientific study of nature will grow out of the more informal treatment of this earlier period.

The contemplation of nature should never be forced upon the child. Children turned loose in a field of daisies on a perfect June day will rush to pick the daisies. The grown person may pause and drink in the beauty of meadow and sky. The child's rapture in living and moving in this lovely place is no less real to him, but it is expressed in activity. A child's moods, his emotions affect his appreciation of beauty in all its forms and cannot be forced into adult moods. However, every thoughtful and appreciative mother may find time and opportunity in her busy life to enjoy sunsets, rainbows, and the changing phases of the moon and stars with her children. This type of nature phenomena induces in young children thoughtfulness and a quiet joy which is different from the happiness of a daytime experience. As has been suggested, the use of pictures and songs relating to changing aspects of nature help to intensify the children's sense of beauty.

Music Appreciation. In a book entitled *Music and Life*, Thomas Whitney Lurette makes this statement: "American children are musical. American adults are not, and the chief reason is in the wasted opportunities of childhood." Mr. Lurette goes on to say that while young children should not receive technical musical instruction, their interest in rhythm and in melody may be developed and form the basis for technical instruction. Music with children in the home may take three forms:

1. The development of rhythm.
2. The development of musical appreciation.
3. Tone production, or singing.

Development of Rhythm. The appeal of rhythm is illustrated by the nursery rhymes and lullabies that have delighted children for many hundreds of years. This interest in rhythm is the most primitive form of musical appreciation. While the modern mother does not rock her baby to sleep, but lays him quietly on the bed and leaves him, there is no harm in singing to babies and in playing with them at appropriate times. "This little pig went to market" is demanded again and again by Mr. Baby when he is being dressed and undressed. He is charmed by the rhythm and repetition associated with the play with his toes.

"Trot, trot to market," "I had a little hobby horse," "This is the way the ladies ride," repeated as baby is trotted on mother's knee, is another form of rhythmic play. All the *Mother Goose* rhymes appeal to children because of their rhythmic quality. This traditional lore has great value for children, not only as the beginning of music but also of literature. All babies should have the experience of hearing lovely, soft, rhythmic music and associating it with the love and protection of the mother's arms. Such lullabies as "Sleep, Baby, Sleep" and "Rock-a-bye-Baby" are every child's heritage, even if he is not rocked to sleep with their music.

As the baby grows older he will be interested in finger plays, and later he will be interested in plays that encourage the use of the whole body. He has learned to walk, and his action has become larger and more vigorous. About this time he may be interested in activity related to the music of piano or phonograph, but care must be taken not to force his interest in responding to music. Young children vary greatly in this kind of interest.

RESPONDING TO MUSIC THROUGH RHYTHM



The question here arises whether it is better to use the piano or phonograph in developing musical appreciation in children. Those are practical considerations which make the phonograph a more convenient instrument. It is more inexpensive, it takes up little room, and it demands no technic to produce its music. There are many advantages in piano music of the best type. Young children listen more readily to a piano than to a phonograph. The music is clearer and rounder, and there is a direct response to the person playing. The performer can also follow the moods and interests of the child much more readily than can be accomplished with the more inflexible instrument. However, a great deal of pleasure and profit may be obtained from the use of the phonograph, and it has the great advantage of supplying the world's best music for intimate use in the house. Most people have not enough technic to play this music.

A child as young as two years will often listen with interest to instrumental music. He will enjoy strong, rhythmic music like the "March of the Men of Harlech" and "Bonnie Dundee." The child is interested in the music and in the cessation of sounds when the music stops. He will be interested in clapping vigorously and stopping when the music stops, or tramping to it, or marching about the room. This kind of play should only be carried on for short periods of time. Keeping time to the music should never be emphasized at this stage. The child will grow naturally into the feeling of the rhythm, and any suggestion

of drill will take away from the play spirit. Children enjoy playing a game where they walk to the music and then sit down abruptly when it stops. This idea can be carried out in playing some of the nursery rhymes. Mother sings,

“Jack and Jill went up the hill,
To fetch a pail of water.
Jack fell down—”

The little child stands intent, waiting for the word “down.” The same idea comes in “Humpty-Dumpty.” The cessation of music as a signal is also used in the game of “Musical Chairs.” A small group of children will enjoy running around a row of chairs and sitting down quickly when the music stops. At the age of three or four it is not necessary to have the element of competition enter in, as with older children. The practice of having one chair too few for the group so that one child fails to get a chair each time will be enjoyed.

The ability to recognize when the music is playing and when it ceases may be the basis of a finer discrimination between loud and soft music. At first the two elements should not be combined in one piece. A very light march, such as Schumann’s “Soldier March,” may be played very softly. Then such marches as “The March of the Men of Harlech,” or “The Parting March” from Lenore by Raff may be played vigorously. The child may be given a choice as to which one he wants repeated, learning to use the words “loud” and “soft.” He can choose whether he would like to clap to the music or march to it. If he claps very loud, the mother can suggest that she cannot hear the soft music.

For the development of marching, skipping and other rhythmic activities, a wooden floor is almost indispensable. Not only can the child hear the beat of his feet as he keeps time to the music, but he can secure a freedom of motion which is not possible on rugs or carpets.

After *loud* and *soft* have been associated with different pieces, they may be combined in one piece, which will require more attention from the child. Tramping and walking on tip-toe are the two contrasted responses. As discrimination develops, ordinary walking may be added to music moderately loud. Responding to loud and soft music is the basis of the game, “Magic Music,” which can be played by one child or a group of children. The child goes out of the room, and the one remaining in the room hides a thimble or any small, familiar object. When the child comes back into the room, the music plays loud when he approaches the place where the object is hidden and soft when he is far away. The music may stop entirely when he is very far away. This game gives excellent training in listening to the instrument as a signal. Listening to music as an esthetic experience would be quite different, and will be described later.

Other rhythms besides marching are galloping, skipping, and light running

and suitable music may be provided for each one of these activities. Children of two and three and even some children of four years skip with one foot leading, not being able to throw the weight from one foot to the other. Kindergarten teachers have sometimes called this "skipping on one foot." It is a little prancing motion and from it may develop the more accented gallop and skipping. The child can learn to throw weight from one foot to the other by hopping slowly on alternate feet. When the child has just learned to skip, the music should follow his activity. Later, very beautiful movement may be developed in the slow skip, where the knees are lifted high, and the quick, little tripping skip.

In addition to free, rhythmic movement about the room, certain music will suggest twirling, or jigging in place. Combination of these steps with stamping, tapping the feet and clapping will be suggested by the children as they learn to interpret music in bodily rhythm. Slow walking and bowing will be suggested by the music of the minuet. All this activity should be very free and natural. If young children receive the idea that following the explicit directions of an adult is the only way to learn to dance, they will never interpret the music in original ways of their own. Instruction in dancing steps should come at a later period.

A set of phonograph records has been prepared under the direction of Miss Patty Hill, Professor of Education, Teachers College, New York, for use in the kindergarten and primary grades. These records contain selections of beautiful classic music, and are classified as Music for Interpretation, Music for Appreciation, Music for the Band. A descriptive booklet entitled *Latest List of New Columbia Records for Kindergarten and Primary Grades* may be secured from the Educational Department of the Columbia Graphophone Company, 1819 Broadway, New York City. A selected list will be given at the close of this chapter.

USE OF INSTRUMENTS



Drums and horns and mouth organs have always been popular playthings with children. The kindergarten has used this interest in the form of a kindergarten orchestra. Care is taken in the selection of the instruments. As the children play in response to the music of piano or phonograph, it is obvious that the melody must not be submerged in the discord that would result from the way children play such instruments as horns and mouth organs. Young children have not the technic to play the melody, so only instruments that emphasize rhythm are used. Drums, tambourines, triangles, cymbals, rattles with

bells, give variety in the quality of sound, but do not interfere with the harmony of piano or phonograph. Drums, tambourines and rattles can be bought in toy departments. The other instruments can be procured at music stores. If one does not want to buy special instruments, rattles of different kinds and small blocks which may be struck together can be used.

The same sequence may be followed in learning to use the instruments as was used with the activities of clapping, stamping, etc. A simple march may be played, the child keeping time with drum or tambourine, rattle or blocks. While "keeping time" should not be unduly emphasized, the use of instruments will follow the development of marching, skipping, etc., and the child of five or six will have a better idea of rhythm because he has performed these activities to music. He should play the instruments lightly in the beginning, so that he can keep with the piano or phonograph. He will enjoy the game of having the music stop and not being "caught" by playing on with his own instrument. If there are two or more children playing, one child may be the leader of the orchestra and use a stick for a baton. He may indicate by rapping when he wishes the music to begin, and when he wishes the music to stop, he may raise both hands or use any other definite signal that he may choose to adopt. Some children develop considerable ability in responding to phrases in the music, and become sensitive to changes in time and melody. They are able to play their instruments during one phrase, stop at the beginning of the next phrase and let the piano or phonograph play it alone. When the familiar first phrase returns, they play once more. One would not expect all six-year-old children to develop this type of discrimination, but it is given merely as an example of the way listening to music may be developed with children who have some musical ability.

Another variation in the use of instruments is responding to loud and soft music. The contrast should first be emphasized in different selections; later, loud and soft may be combined in the different phrases of one piece. From being able to distinguish between loud and soft will develop the ability to distinguish more subtle qualities, as light and heavy, slow and fast, etc. The tambourine is an excellent instrument to use in this connection, because two kinds of sound can be produced on the one instrument. The child may beat the tambourine for the heavy music and shake it gently in time to the lighter music. The tambourine lends itself delightfully to the invention of dances by the children. For example, music that suggests a slow walk and then a light run or a twirling around, would give the child the suggestion of walking slowly, beating the tambourine in time to his footsteps, and then shaking it merrily as he twirls or runs or jigs.

When various instruments are used with a number of children, finer distinctions may be made in differentiation of quality. Drums and tambourines may

be used for definite beats and heavy parts; rattles, small cymbals and triangles may be used for lighter parts. The leader of the kindergarten orchestra enjoys the power that comes from indicating to each group of players who shall play and who shall desist. The grand *finale* of the piece enlists the enthusiastic coöperation of all the players.

LISTENING TO MELODY

Reference has already been made to the singing of lullabies to children. When they have become familiar with "Sleep, Baby, Sleep" or "Rock-a-bye Baby," they will enjoy hearing these records played on the phonograph. The same will be true of the *Mother Goose* rhymes. After listening to the music of these familiar songs, folk music, which has a decided rhythmic quality, may hold their attention. Illustrations of such music are "Bonnie Dundee," "Pop Goes the Weasel," "Money Musk," and "March of the Men of Harlech." When the children have grown familiar with certain musical selections and ask for certain favorites, they are probably ready to listen to a more subtle type of melody. The theme from Beethoven's "Ninth Symphony," or the *Andante* from the Fifth, or the "Morning Mood" by Grieg may be played to children in those happy, intimate, quiet hours which are a part of all true home life. When young children learn to appreciate beautiful melody, they will enjoy concert music when they are older.

LEARNING TO SING



The age at which a child is able to carry a melody differs widely with individual children. Sometimes a child of three will carry a tune quite independently of another person or of an instrument. Some children of six are unable to sustain a melody. Ear training can do much to help children in learning to sing. A child's inability to sing is due in almost every case to an inability to hear the gradation in the tones that make up the melody. For the child who only sings on one or two notes, matching tones will be an interesting game. The object of this exercise is to train the child to hear different tones and to reproduce them. The mother may play that the train is going to whistle and the child is to make another whistle just like it. She may give the sound to "toot-too," sing or play it on the piano. At first it is best to use the tones that the child himself naturally uses. Indeed, it is a good plan to have the child make the sound first, and the mother reproduce it. This gives him confidence, and helps him to hear his own tone. The tone may at first be low and heavy, but if the child is encouraged to sing very

softly, as if the train were far away, he will begin to get a lighter and higher tone. Another play that he will enjoy will be "echo" or "hide-and-seek." The mother calls softly and he responds from his hiding place with the same note, or he may sing "I am here," on one note when he is hiding. A second step may be taken by having the child sing the simple lullaby, "Hush, my baby, go to sleep," to the notes of "a" and "e"—key of "A," beginning on "A" and singing the melody slowly and evenly. Care should be taken to have the child sing lightly, so as to secure a head tone. He should be encouraged when he achieves any change in pitch from the few tones that he has been able to sing at first. He should never be made to feel that he is slow in learning to sing. Many adults who love music and yet who have never learned to carry a tune might have been trained to do so if they had been encouraged instead of discouraged when they were children.

Children should learn songs by hearing them sung. The song should be as natural a mode of conveying an idea as a story. While instruments can never take the place of the human voice in this phase of musical expression, records may be used fairly successfully, and can be secured from the different producing companies. Children may learn to sing songs from the records, if the words have been taught them in the same natural way that they have learned their *Mother Goose*. Some excellent children's songs will be found in the following books:

1. *Child Land in Song and Rhythm*. Jones and Barbour. Published by Arthur Schmidt, New York.
2. *First Year Music*. Dann. American Book Company, New York.
3. *Small Songs for Small Singers*. Neidlinger. Schermer, New York.
4. *Mother Goose Melodies*. Elliott. McLaughlin Bros., New York.

COLUMBIA RECORDS

1. A—3100 Simple march time. First stage in clapping, marching, keeping time with instruments.
2. A—3096 Other types of marches.
3. A—3129 and A—3130 More elaborate music for band, with suggestions for different instruments.
4. A—3126 }
3123 } Music for band with variations in time and themes.
5. A—3099 Music for skipping.
6. A—3128 Gallops.
7. A—3098 }
A—3127 } Music with the suggestion for combinations of walking, running, stamping, bowing, etc.
8. A—3095 Lullabies. Music for appreciation.
9. A—3094 }
A—3122 } Melodies for appreciation. Listening.



How Children Teach Themselves

MINNETTA S. LEONARD

LEARNING is a natural process in children. Their play, to a discerning adult, is constantly revealing the way his mind works and how he should be educated. He uses correct methods and reveals through his interests what the subject matter should be, but his inexperience and lack of knowledge of what material may be had on these subjects make it impossible for him to get all the good to be had from his interests. It is for the adults about him, who have an understanding of what literature, mathematics, geography and science have to offer him, to come to his rescue and help him through his own methods to get bit by bit what experience he can use from these. Often the ideal opportunity for a live arithmetic lesson at home, worth more than a week of drill at school, is lost because the parent has not seen its possibilities.

Parents should be alert always to give help or suggestion at the crucial time. This means looking ahead to see what the child of this age may turn to at any time, the interests he is likely to develop on the one hand, and on the other, keeping in mind what of number, reading, geography, science, sewing or handiwork and the like may be useful to him and that he may grasp. It means having a knowledge of the sources of books and material possibly to be needed and knowing where they may be had at a moment's notice. He must read the signs of a dawning interest, and be prepared to help when it comes. If taken at the right time, a long series of useful activities may follow. If ignored, the interest may drop and the chance for development along this line may be lost.

May the writer take an illustration from her own records?*

Betty, age six and a half, had for many days shown a deep interest in cooking and begged to bake a cake herself. Her mother should have stopped her other work and been prepared to give her a simple cake recipe should she ask for one. But it was a busy season, just before Easter, so she put the matter off, saying, "Yes, you wait until I find one a little girl can follow." Easter morning came and with it several delightful surprises for Betty. Her gratitude, as it should, took the form of wanting to return joy to her parents. A cake for a surprise for mother was naturally her first idea. She hurriedly dressed to rush downstairs to make it. Her father promised to help her when he got up. But an Easter nap was too good to be cut short for a cake which could bake as well at eleven o'clock as earlier. Her mother, surmising her ambition, begged her to wait until she could help her. Betty tried hard to wait. She hunted a recipe from the book and showed it to her mother. "No," said her mother, "that won't do, there is so much books do not say about mixing sugar and butter and about baking that you must wait until I am ready." After a bit Betty returned joyously, announcing that she had the things ready and would wait. Getting things ready had been put to several ingredients in the bowl. The precious sugar and expensive butter and eggs were wasted. Her mother saw only a case for discipline. When she said, "I'm sorry you didn't mind mother; you will have to put off making the cake until another day," the disappointment brought yells and passionate howls and kicks.† Her mother found herself with the most serious case of discipline she had ever had on her hands.

The state of nerves and fatigue which too often obscures the mother's sense of realities are altogether inexcusable in adults who dare to guide little children. In this case father saw the truth. "You shouldn't have asked such a hard thing. Why didn't you ask her to dress her doll or do some definite errand until you were ready to help her?" Later he proposed to Betty, with no reference to trouble in the morning, that the two surprise mother with some "butter scotch." The candy was a failure, but even now, a year later, it remains in Betty's mind as perfect candy. The true way, which her mother has followed since, would have been to allow the waste of fifty cents' worth of material on Betty's experiment. The failure she would have made of her cake if left alone would have been the best experience to make her realize the need for following directions. Her mother went down to the library the next day, secured several children's cook books and made a small recipe card file. Next day Betty was left alone to prepare a few simple things for the family. A

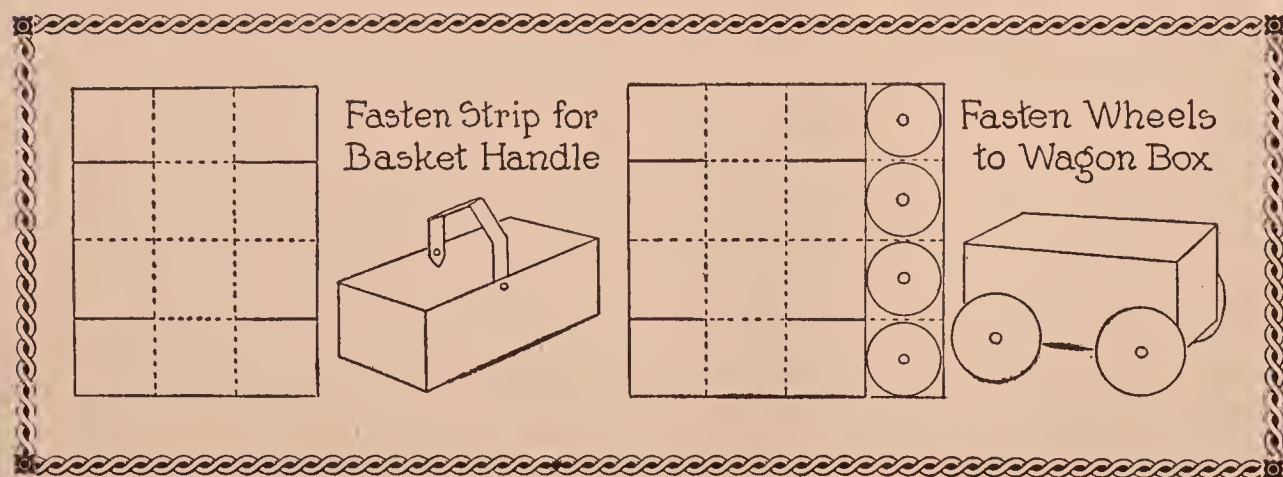
*Unpublished records of the author.

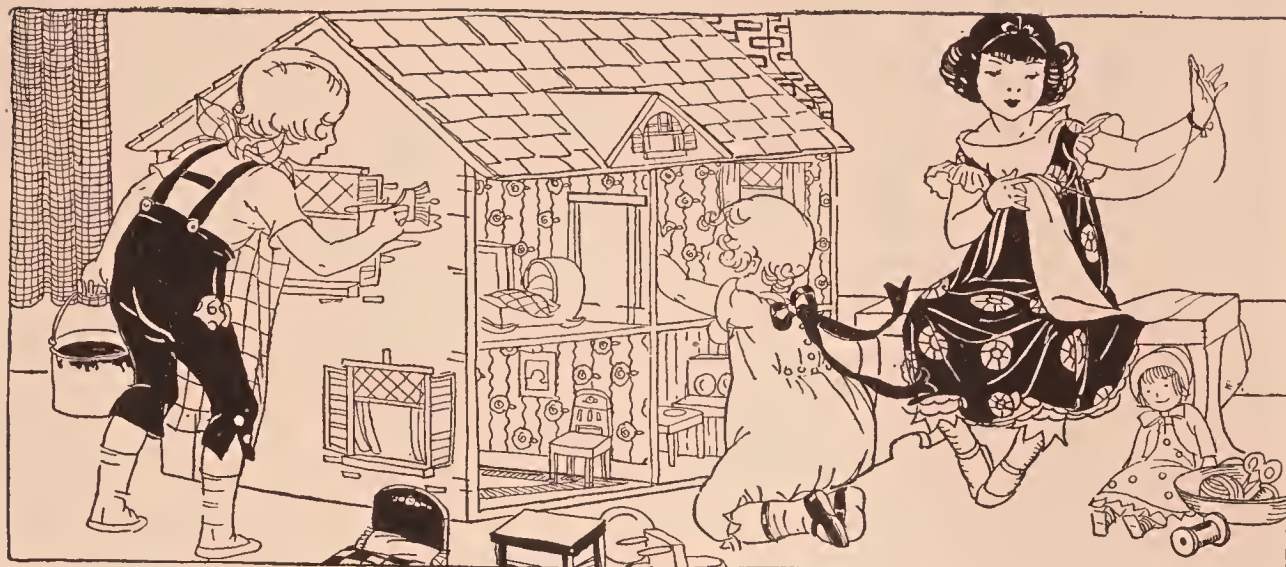
†Such passionate outbursts are usually caused by a sense of injustice. An attempt to understand the child's point of view and his nature often averts a need of discipline.

kindly neighbor lent a cake mixer into which all cake ingredients are put without the work of creaming, sugar, etc., and Betty succeeded in making a cake by herself which the family ate with pleasure.

An excursion to a nearby cash-and-carry store will be used here to illustrate the kind of learning situations which are so valuable that they should form the basis and starting point for most lessons in and out of school. The progressive school sees to it that the same kind of plays described shall take place in school as well as at home, and that all later formal lessons in reading, writing and so on, grow out of these. The store is merely one of the many activities the child dramatizes. Going to church, making calls, riding on street cars, entertaining company and having a circus are favorite ones. The coming of Santa is probably the favorite subject for dramatization. Going away on trains, to the sea shore, farm, mountains—the values in these will be mentioned later.

Representative and dramatic plays begin at about the age of two and a half years. The same experience may be dramatized by the two-year-old dozens and dozens of times until he is eight, nine, or ten. But each time he does it he makes changes in his dramatizations and enlarges upon them. At each stage the help he needs from teacher or mother differs, because his problem each time is a new one. The little child is likely to play out only one part at a time. One day it is the telephoning; next the writing down orders or their delivery; again it may be the sorting and arranging of objects for sale or the conversation between his mother and the storekeeper; or it may mean getting his dolls ready and going to the store. Gradually he puts more and more of these activities together, until at four or older he acts out all of these at once. Somewhere he lacks ready-made objects to use, and he begins to cut out money, fold a box or bag, fashion a crude pocketbook, and handiwork enters in.





Much later his standards of dramatizing become more and more exacting. His imitations of conversation, directions and activities must be more real. Then he becomes discontented with scribbled signs and wants real ones; so he learns to print or write these. Later he is not satisfied to play weigh, measure, make change, etc., but must have the real thing; so he becomes interested in being exact and in getting a mastery of measures, weights, money and other knowledge of use to the storekeeper. They imitate first the striking and outstanding activities, and gradually try to get at the less evident and real in these activities as the years go on.

Reasons Why Children Play at Reproducing the Life of People About Them. It would be most interesting to go into this topic, but space is so limited in a book of this kind that it isn't possible. It would be well for mother to read *Spontaneous and Supervised Play*, by Alice Corbin Sies. The writer has had a wide experience with children in kindergarten, school and public playground, as well as with her own child. This book is a record of her experiences. Also *Johnston's Education Through Plays and Games* and *Play Life in the First Eight Years*, by Luella A. Palmer, are excellent for further study. Here we shall merely state without elaboration what seems to be the reason children delight in playing at reproduction of the lives of other people.

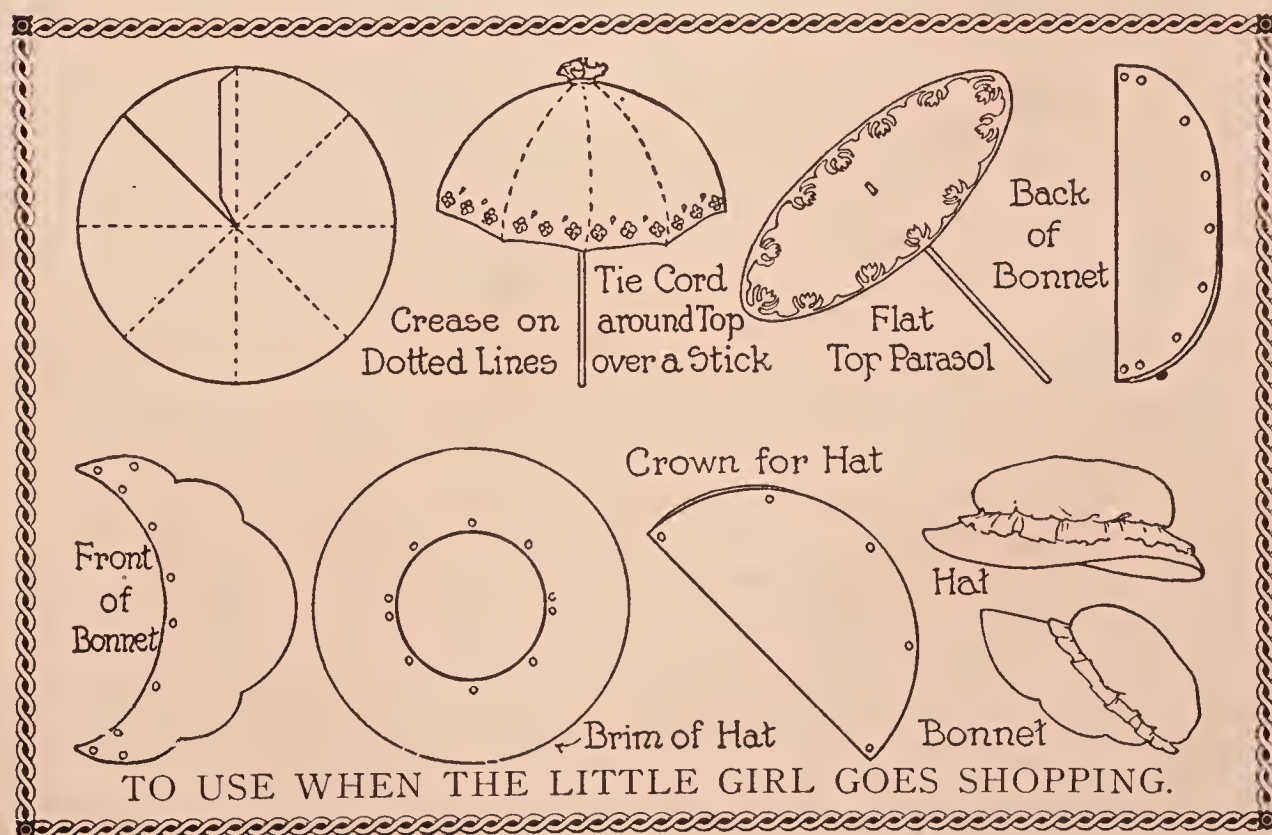
1. In the little child thinking and acting are not separated. To think an act usually means to perform it. Most of the plays are a sort of thinking out loud. He plays the thing he is thinking. An adult's thoughts about these things march through his mind with no sign to an onlooker of what is in his mind. This power to think without expression develops very slowly in the child.

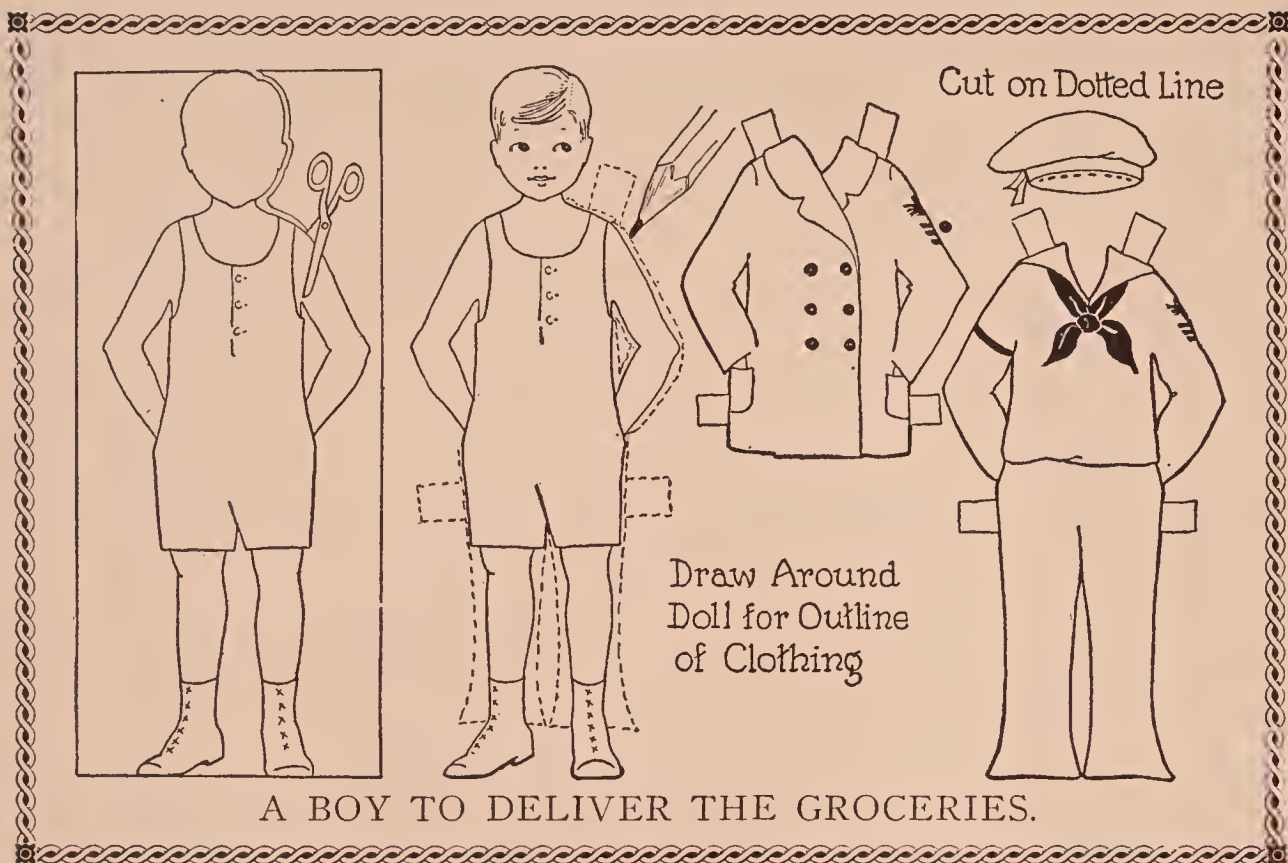
classify his ideas, leads to the collecting and arranging of objects. His need to manipulate leads him to imitate sweeping, dusting, scrubbing, and so on. Thus he exercises body and mind at the same time. Around six, when number work and reading interests are dawning, he adds these to his play. And wholesome absorbing play is establishing right emotional attitudes, happy "busyness," and the sense of freedom with growing sense of self-respect through accomplishment. This need for the development of imagination along right lines is especially cultivated in these plays.

Educational Values for Parents to Seize Upon. The play of the child at any particular time reveals two things to the onlooker. (1) It discloses the extent of the child's development, (2) and informs parents as to the things he is ready to appropriate and use out of the many experiences which will later be developed. There arise these points:

1. Should I let my child go on with this play? Does it present worthy ideals of service, bravery, effort, cleanliness, etc., which he may get through thinking in act about them?

2. May these activities lead to the formation of good habits of work and courtesy? Plays which represent housework may be used to teach well how real beds should be made by making the dollies' beds in the right way; by washing





doll's clothes and giving lessons in real washing. When he plays street car at home John may learn to assist his mother or playmates to get on and off cars, to give up his seat to ladies, and to tip his hat when he does so.

3. What desirable handwork may be suggested as a valuable aid in this play? May other handwork activities, such as drawing what one sees and does, also cutting, painting and clay modeling, develop from such play?

4. Can I add music as a rhythm or a song to give expression of this experience in another way?

5. Have I any good pictures of others doing these same things to show in this connection?

6. Is there any opportunity to get number-work experience from this play? Does it suggest the value of knowing how to read, or learning to write? Much success in these subjects comes from a hunger in the child to master them for his own use. While we should not give formal lessons in these subjects early, we may use these pre-school years in whetting the appetite and making the child feel a real need for them. This will be the carrying power and the urge when once we give him liberty to work at them as formal studies.

Let us again use the illustration of the results of a visit to the store, to



show how the mother may help in the play to develop its greatest value and to illustrate the difference the age of the child will make in his play.

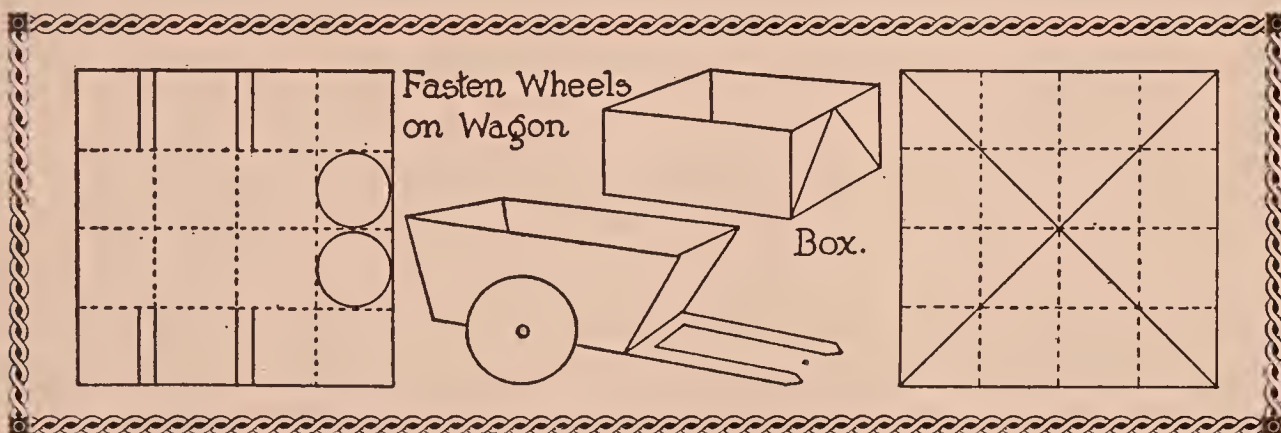
John, aged three, may spend much time with his wagon, or a box he pulls about, loading groceries, wrapping up objects in newspaper for groceries to deliver at mother's chair. He may go to the wall to answer an imaginary telephone call, to give or take orders. He needs companionship for this play. The mother by her questions as a person in the game leads him to make his play more real. If he calls a cube an apple, his mother, who knows his ball would be better, says, "No, thank you, I don't want that sort of an apple. I like round ones. Next time you have some nice apples bring me some." John hunts around and selects a better toy for his apples.

His mother sees to it that materials which will help him at his play are at hand, but if she is wise she lets him find them and select them himself. All suggestions and corrections she gives in the spirit of a companion in the play. This is easy to do while continuing to do the housework. Some one to converse with is about all the little one asks of his companions in these early plays.

Mary, aged three and a half, may do all these things, but she may go further. She may fix a counter, using a chair, or two chairs and a table board for a shelf, and arrange all sorts of objects for things to sell. She may have

boxes arranged to hold these, or use collections of empty cans and boxes for things to put on sale. She may need money for selling. Perhaps she will add to this play an attempt to write orders, and so on. Her play is more complicated than John's. She will be satisfied with just imagining a few big activities, but will add more detailed action and conversation and require more objects which in shape or color resemble her merchandise. Balls for apples and oranges, cylinders for cans of vegetables and fruit, sticks for bananas, candy sticks, etc., cubes for boxes of various kinds are demanded. She will probably want bits of paper for money. Before long she will want a shopping bag. Perhaps the gift of mother's old handbag may have started this play, reproducing a trip she enjoyed when her mother's handbag played an important part.

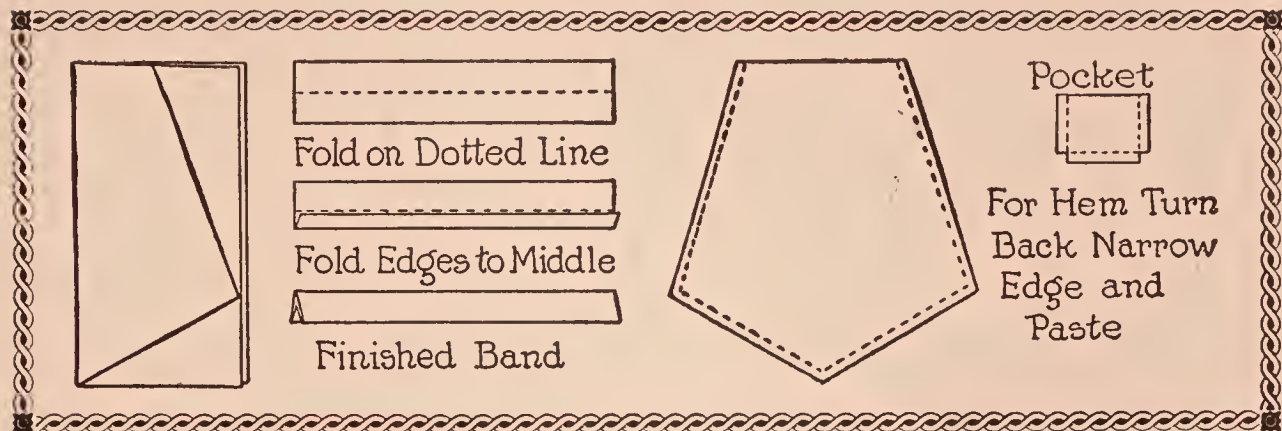
Her mother sees to it that Mary has a good corner to play in. She will let her have boards or boxes to make the shelves, also empty pasteboard boxes and paper bags which she has saved for such purpose, and all sorts of objects



to sort, group, and arrange for things to sell—clothespins, sticks, burnt matches, marbles or wooden beads, and the like, collected from anywhere about the house.

Or, the mother may see that Mary's ability to build with large blocks makes it easy for her to construct a good block store with counter and shelves on which she may put objects for sale. She may make little cakes and pies to sell. A paper-doll man and a lady as customers will be wonderful incentives to play out the whole scene. The mother sees that if Mary's building is good and the play has just started, the block store should be left until to-morrow, so the play may continue where it was interrupted.

Or, maybe she can build a wagon with her blocks. Mother helps by tying a string slightly around this wagon to hold it together, and Mary loads up her wagon and delivers her groceries. She may discover the need of block houses



at which to leave groceries, and so she builds many simple houses. A great variety of activities may grow out of a really vital experience.

May, who is older, is beginning to count. She counts out the number of bananas, apples, etc., asked for, with mother's help where she omits or repeats a number. She measures large and small, long and short, heavy and light things, as the shopper calls for these. So even here a quite valuable bit of number experience begins.

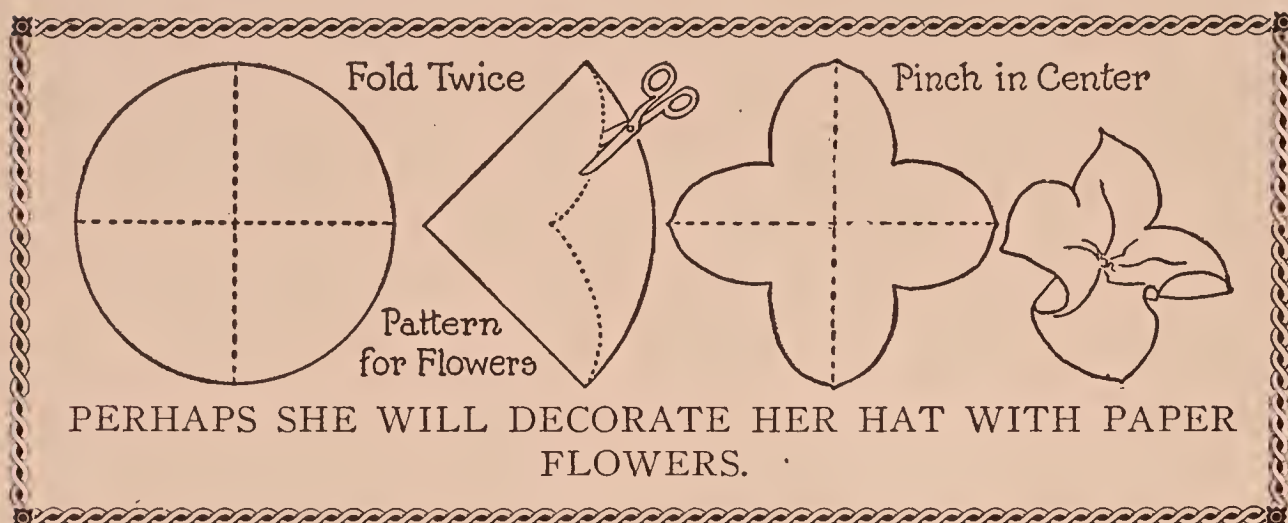
Mary may spend a long time drawing pictures of a little girl and her mother going shopping; of things they saw on the way to the store and at the store. Her mother helps to make these better by questioning what the little girl is doing—is the little girl in the picture as big as her mother, etc.

She has acquired some ideas of using material for making things; so she moulds cookies, loaves of bread, apples, roughly-rolled clay sticks for bananas. She uses her clay to tell part of the story.

When she plays with her blocks she tries to build the counters, the shelves where the cans are kept, the grocer's wagon, and boxes in which he kept his vegetables.

She is learning to cut out pictures, and as she finds pictures of fruits, cracker boxes, and gelatin advertisements she may pile them up to use for a store.

Jane, aged five and a half, has probably played the same things as Mary, but she has, no doubt, been interested in the signs she saw, in trying to read labels on the cans, on the store front, in the window. Her playing store is more accurate than Mary's in what it attempts to represent, and her conversation is more nearly like her mother's and the storekeeper's. To make things more real, she may try to print signs, to cut out pictures of loaves of bread, cans of vegetables, and the like, paste standards behind them to make them stand up; to make real boxes and bags to hold articles. Her clay fruits and vegetables



are truer in form, and many she may have dried and colored to make the forms more lifelike. If she writes things in her order book she is likely not to be satisfied with just scribbling, but will want to write real words, and take pride in their appearance.

Her handwork, while better than Jane's, will not be done merely to reproduce what she saw, but to reproduce things to use, and whether they are usable or not will be the standards by which she judges her own work.

She also will draw pictures telling the story of her trip, and perhaps paint them, too.

Jane may wish to make a pocketbook and bag to carry to the store, and probably a dress or a hat for her to wear when she shops with her doll baby.

This is the mother's chance to furnish background experiences in sewing, cutting and designing. Her block building, folding, cutting and drawing should be much more carefully done than Mary's. She will no doubt attempt much harder forms and be more critical of their suitability, and yet she is still at the age where experiment rules, and perfection is put off until a later age. The mother should hold to the neatest and best work (never careless work) of which Jane is capable at this time, but be content to wait two or three years, possibly, for the beautifully finished article. This isn't the only time that Jane will attempt these things. Each succeeding effort she makes will quite likely be better than the last, showing the growth which has taken place in her ideals and power of execution. Parents too often discourage effort by demanding perfection too early.

While Mary and John may have been satisfied with mother's little part in the play while she went on with her own work, Jane feels the need of some one else to enact the part of storekeeper from whom she buys. One or more playmates become a real necessity for the successful carrying out of the game.

If she has playmates, it is quite likely that one becomes the storekeeper and another the housekeeper. And there develop two quite distinct plays. The mother, keeping house, cooking, dusting, sweeping, sewing and going shopping; the storekeeper, arranging and tending the store. There might be more than one store set up. Often the drama of the family life is acted. The storekeeper becomes the father, who closes up his store at night and comes home to eat and sleep.

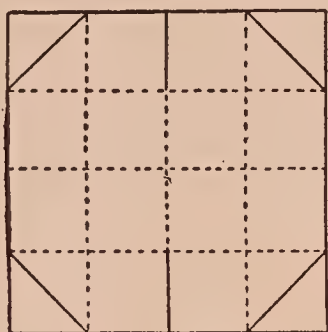
Jane's actual trips to the store now have a different meaning to her. She enters the store with eyes wide open, to see how it looks, what the storekeeper does, how much things cost, and so on, gathering information which will help her out in her own play. She becomes more alert to signs, prices, the use of scales and measures, to the use of the telephone and the telephone book.

Henry, quite a little older than Jane, carries this interest yet further. He may be ambitious to be a storekeeper, and so tries to acquire the training he thinks will fit him for it. He uses weights and measure at home, learns to write and print signs, to take orders others can read, to buy and sell with paper money marked in cents, nickels, and dimes, and develops a simple system of number work. He is not so content with the pretence, but must have the trading more nearly like real business. The things he sells must be more like things for sale, and his handwork thus steadily improves.

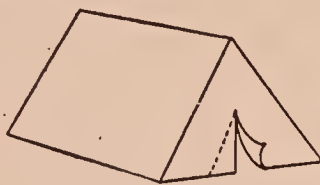
Suggestions on what things to make and how to make them should originate with the child, as far as possible; the mother steps in only when needed. Remember, it is not the mother whose life is unfolding and seeking expression, but the child's. Give him freedom to unfold.

There is no better situation for the development of real numbers than the store plays. Too often, however, children are not helped to get all the value from these, because parents discourage the play. A store takes time to get ready, and plenty of room. By the time a store is ready for real business play-time is over—everything must be taken down and put away. There should be a corner of the playroom, the attic or cellar, where plays set up may stay from day to day until all the good possible has been derived from them before they are torn down.

This is one real chance for number work. Give Henry plenty of chances to buy at real stores, to make change, to ask prices, to watch weighing and measuring. At home let him use real scales to weigh all sorts of objects and record results. Let him measure quarts, pints, gallons, and record his findings. Send him to the store with definite problems to be worked out by asking the storekeeper. He may also realize the need of recording the money he takes in and what he does with it. He becomes interested in keeping accounts. Practical use of dividing, multiplying fractions, and other processes may be made to

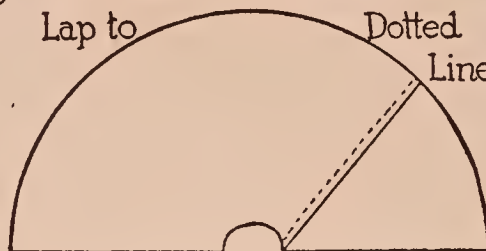


Fold on Dotted Lines; Cut on Heavy Lines.



Indian Tepee. Use Three-Fourths of Semicircle.

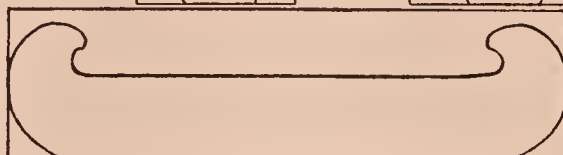
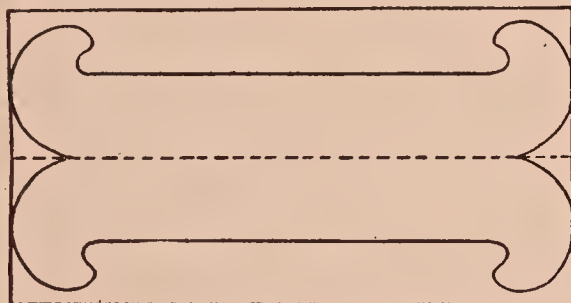
Lap to Dotted Line



Indian Symbols

Figure Cutouts

Fold Canoe on Dotted Line and Cut out.



Spread Sides with Small Stick



Paste Ends Together; Leave Top Open.

FOR PICTURING HIS INDIAN PLAYS IN THE SAND BOX.

grow out of these plays. These facts become knowledge, because based on real experience.

These are the opportunities of the home school over the regular school. It may seize upon any worth while activity as it comes up, and make use of it. It is not bound by a cut-and-dried course of study or hampered by wishes and interference of supervisor or the demands of other people's standards. This home school may always run parallel to the regular school and supplement the work done there; or, it may be the means of making up for the lack of work which should be done in school. But the chances are that wherever the school



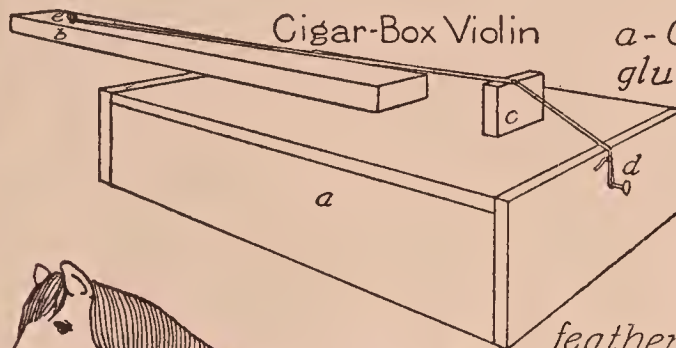
RAINY DAY SUGGESTIONS FROM THE COSTUME BOX

life is really feeding the child, he will carry on of his own accord the school activities in the home. He will live the same things in school and out. This is one important test of a good school.

The progressive school, as has been stated before, makes use of these plays in school to develop the school subjects, and at first children are quite unconscious of learning reading, writing and numbers. Even the geography of other countries, of Holland, Japan, Eskimo-land becomes real knowledge, unlabeled as geography, through dramatizing the story of Kit and Kat, the Dutch Twins, of Taro and Taki, who lived in Japan, or Meni and Moni, the Eskimo Twins. Natural questions arise about where these countries are, how we get there, what kind of climate they have, which may lead to interest in maps showing these.

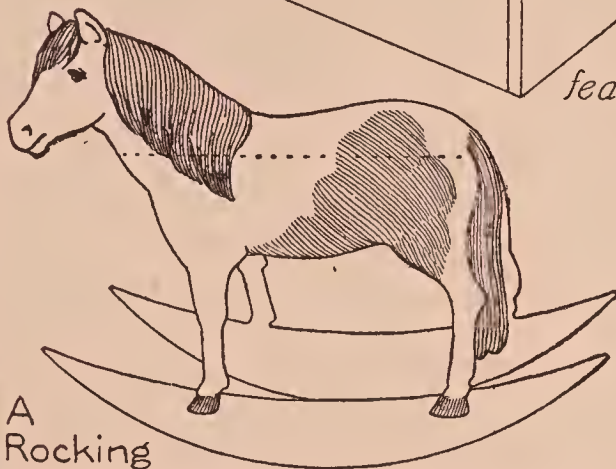
Why Children Need the School. These home activities after school age arrives should run parallel with the school work and continue in vacation days. Unless the school is very poor, sanitary conditions bad, room overcrowded, or the child is in poor health, it is far better that the boy or girl go to school. Few homes, however ideal, can furnish the space and materials required for the enlarged ideals of these dramatic and representative plays. Few mothers are so trained that they can respond quickly to the increasing demands for knowledge in the various subjects; or if she were, few have the time to devote to these needs. Moreover, the boy or girl as he grows older needs more children of his own age to play with him. The good school furnishes all these. The formal subjects grow out of these home plays in school so naturally that the child does

TOYS HE CAN PLAY WITH



Cigar-Box Violin

a-Cigar box. b-Lath. c-Block glued on for bridge. d-Nail put through loop of wire violin string. e-Screw-eye used to tighten wire.



A Rocking Horse. Trace picture of horse, add rockers, fold double and cut. Paste together above dotted line, color with crayon and spread at bottom.

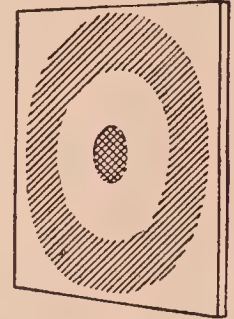


Another rocking horse may be made by cutting two horses from stiff paper. Paste part of match box between bodies where doll can sit. Fold paste-board (a) width of box, paste in for brace



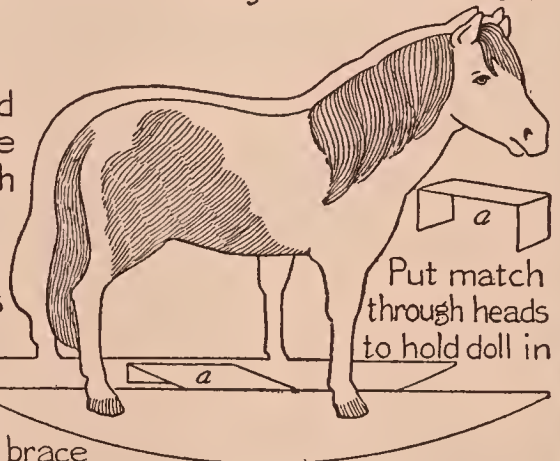
cork

feathers



target

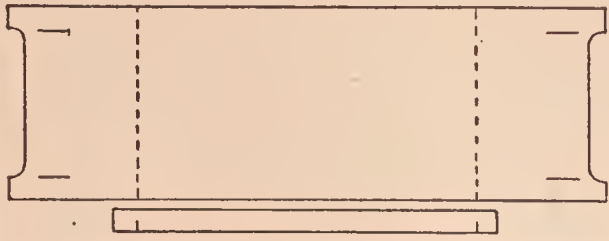
sharp pin A Game for a Boy's Christmas Gift



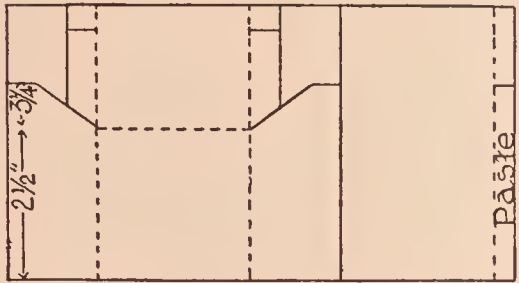
Put match through heads to hold doll in

not realize that they are the work that many children dislike. When they read about Kit and Kat (The Dutch Twins, by Lucy Perkins) in schoolbooks and want to play the story, they find plenty of others who want the same thing; and a teacher who knows how to help them will read more about Kit and Kat's Holland home; will tell how to help fix their costumes, where to get pictures, and so on. By the time this play is over they have had and mastered an excellent geography lesson.

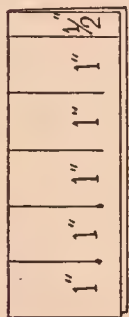
The more mothers study to help make the most of these plays at home, the more convinced they will be that this is the natural and right way.



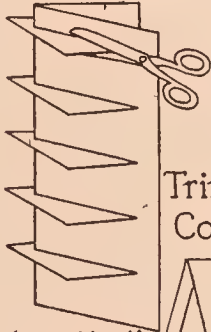
2½" x 8" Table. Two Strips for Braces



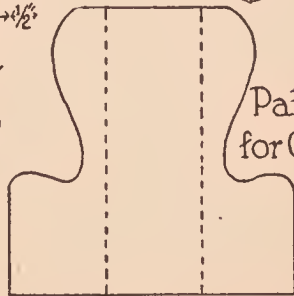
4¼" x 8½" Box Pattern for Desk



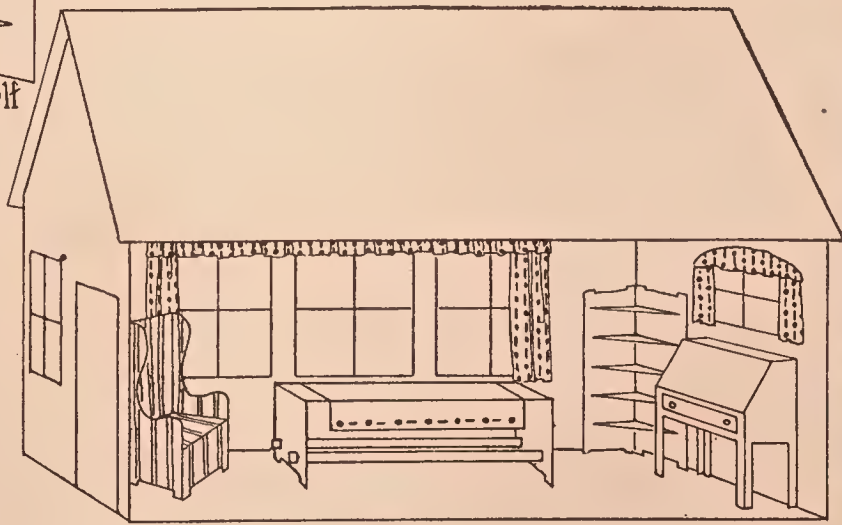
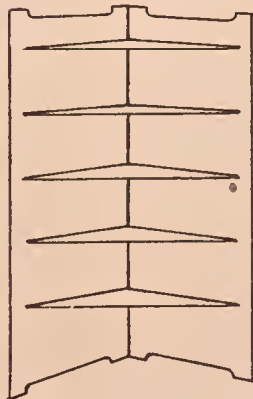
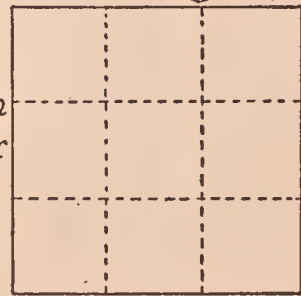
Cut for Inserting Shelf



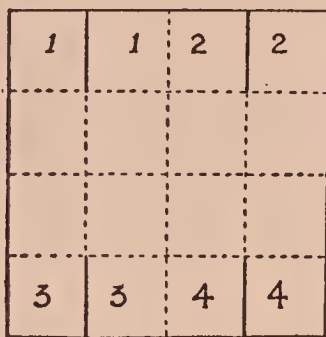
1½ x 3 Shelf
Trim Off Corners



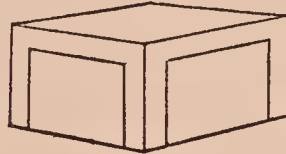
Pattern for Chair



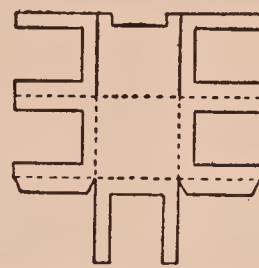
Hat boxes, good sized wooden boxes, or one made from beaver board will make excellent houses.



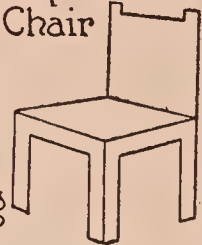
Paste 1 under 1;
2 under 2; 3 under 3;
4 under 4; and
Cut Out Sides



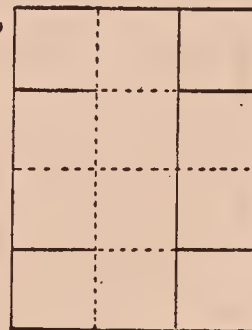
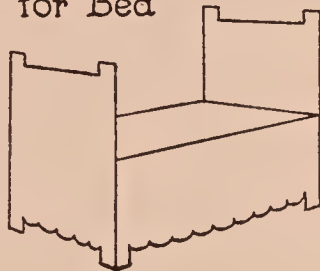
Legs Cut after Pasting



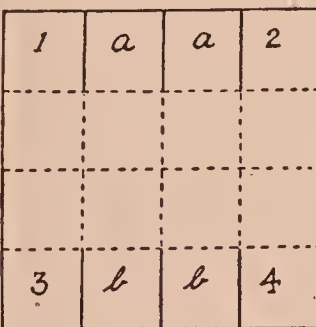
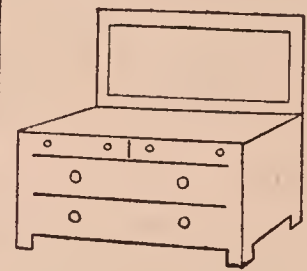
Use Nine
Squares for
Chair



Use Twelve Squares
for Bed



Bureau



Cut on Heavy Lines. Fold on Dotted
Lines. Paste "a" over "a" - "b" over "b." Join 1+2
3+4. Roof and Chimney of House Extra.



Chimney



Dog Kennel

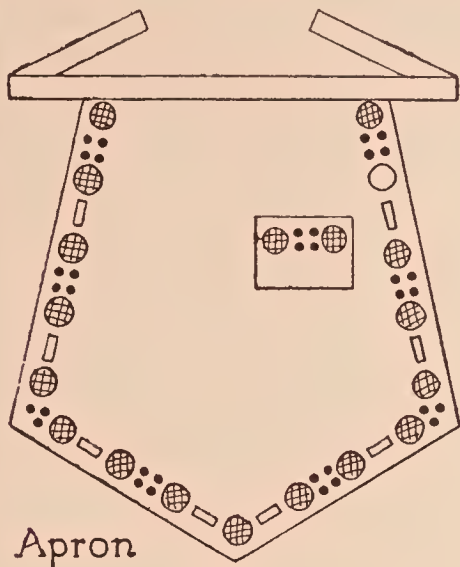


Cut Wide Door for Barn



FOLDED DOLL HOUSE FURNITURE.

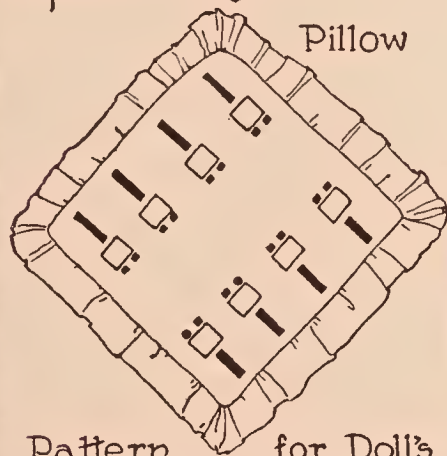
These forms and many others from the sixteen-square fold are among the simplest forms and, therefore adapted to the abilities of the child at this age. Stout squares of various sizes may be ordered from the school supply houses, Milton Bradley, Thomas Charles Co., Chicago, for example. But any parent can make them from heavy wrapping or manila paper by drawing around a carefully made cardboard square, or by cutting directly from stout paper with a studio cutter. Brass spreaders may be used for drawer pulls or these and other decorations can be put on with pencil.



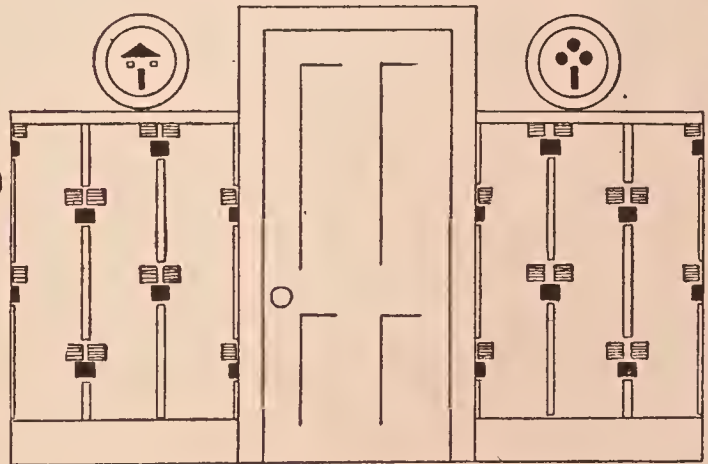
Apron



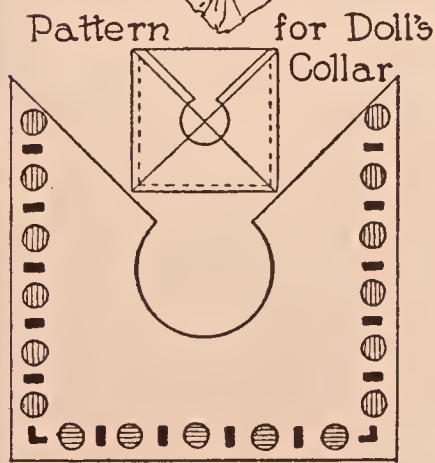
Curtains for Doll House



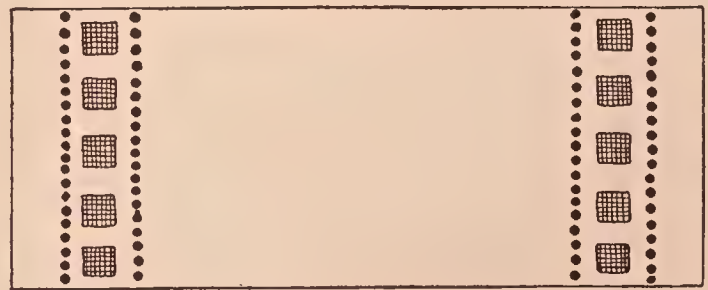
Pillow



Decoration for Walls of Doll House



Pattern for Doll's Collar



Stick Print Design for Rug

THINGS TO USE IN PLAYING HOUSE

OTHER SETS OF SPONTANEOUS PLAYS WHICH ARE OF ESPECIAL VALUE TO GIRLS

Housekeeping Plays. Two lines of development from the age of five onward:

Doll house.

Valuable activities which by being encouraged may last through years.

Sewing: curtains, bed-clothes, sofa pillows, doll clothes, real dressmaking.

Weaving: rugs.

Design: wallpapers, rugs, doilies, tablecloths, sofa pillows, curtains.

What Parents Should Furnish:

1. *For Doll House:* A good house, very plain and simple, which the child cannot make for himself. For very small child: furnishings. As the child grows older remove bits at a time to encourage the making of furniture.

Suggestions where needed.

Materials required.

Showing where child is altogether in the dark.

2. *For the Playhouse:* When children start this play they use chairs, screens, etc., to divide off rooms. At about six, if given screens, the Log Cabin Blocks (very large) or the Hill-Schoenhut Blocks, girls can outline their own houses, one room or several. The disadvantage of this play is that few houses have the space to use for these plays. A cellar or attic is good, or part of the garage. In summer a large piano box in the back yard is excellent.

Furnishing: Children should be given boxes and boards to construct furniture; paints, brushes, and varnish for finishing furniture and floor; rags for weaving rugs; old curtain material and carpeting or other things they require.

Valuable development to be gained from the playhouse plays:

Painting: floors, outside of house.

Carpenter work: furniture, perhaps even making a doll-house.

Cardboard construction work: furniture and other toys.

Cooking: where children really live and keep house in the play house.

Housekeeping: keeping the dollhouse or the playhouse in order.

A later development: they may make books on household decoration.

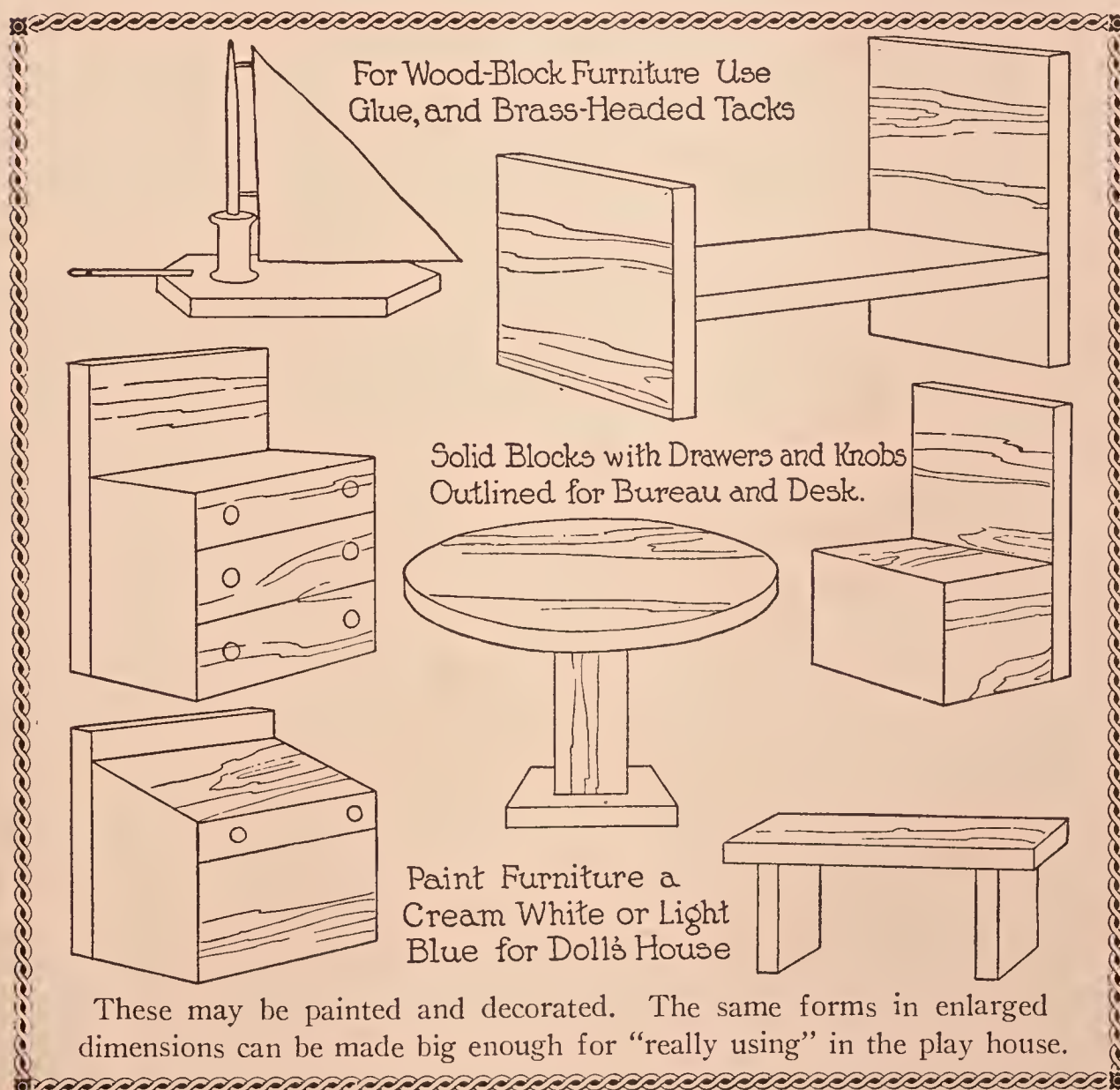
Both Boys and Girls Enjoy and Profit From These Plays:

*Dramatizing Santa Claus and Christmas.

Dramatizing stories, such as fairy tales, children of other lands, etc., and especially the circus. This is rich in opportunity for self-expression, because the experiences of the circus are real, and usually physical exercise forms an important part of their performance.

*All dramatizations, to be of educational value, should be worked out by the children themselves,—speeches, staging, and as much of the costuming as they can do themselves. "Dramatics" for little children kills development and too often makes artificial, self-conscious children.

Often, as children grow older, it is a help to them when parents let them collect around them to talk over their plans and list the materials they need. If done in the spirit of helping them in the supply of materials, the children are not conscious of direction on the part of the parents. The effort to formulate their plans to present to another is a great help to the children themselves and often secures a successful play where otherwise it might be inferior. Care should always be exercised by the adult helper, however, that the ideas and the organizing do come from the children. The helper's part should be to ask questions in such a way that the children become conscious of the gaps in their plans.



Celebration of Special Days

MINNETTA S. LEONARD

IT has been a surprise to me to see how joyously children anticipate the celebration of any special day, no matter how trivial. No sooner is Christmas over than they begin planning for Valentine's Day, St. Patrick's Day, and so on. No doubt it is the joy of doing certain things on certain days because every one else is doing them. One easily understands why Christmas, Easter and such days are anticipated, but there seems to be merely the joy of social participation as an explanation of some of the lesser days.

Why Celebrate Any But the Most Significant? The fact that children enjoy these days so much that for weeks sometimes they work ahead and plan for them is reason enough for giving the events special significance. Whatever stimulates constructive activities and wholesome employment in children is worth notice, and parents may secure really educational activities by the encouragement of these interests. Parents need not do anything about the celebration of certain days; the children themselves will take care of that.

Maintaining a Sense of Proportion. Of course it would be ridiculous for the parent to make as much of Hallowe'en as of Christmas. Some days are days of great significance in human development, and should receive much more emphasis than the lesser ones. Below we shall consider each in turn, trying to show (1) what children find to enjoy in the day, (2) what are the spiritual values in it, and (3) what helpful activities the child may derive from it.

Days of Great Spiritual Significance. Christmas, Thanksgiving and Easter hold the most valuable and fundamental truths for us. These are so important that parents and children alike spend much time in anticipation.

Easter and Thanksgiving are particularly valuable as offering opportunities to emphasize man's relations to God. The particular way we celebrate these days depends upon the religion of the family. It is too bad, however, if parents allow trivial gifts, new clothes and eating to be the absorbing ideas, whatever their religion may be.

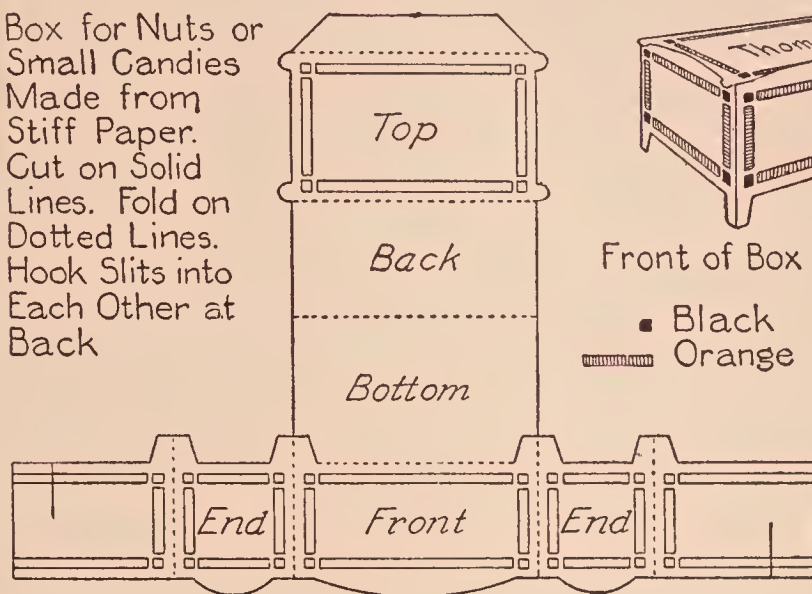
Stories of the seasons which culminate in these two days are best developed through the use of scrap books.

THANKSGIVING

Miss Abbot's article suggests songs and music appropriate to this day.

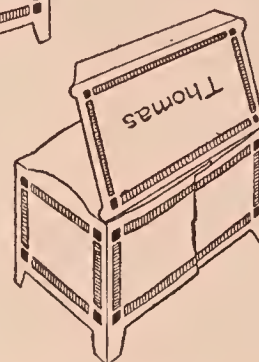
All hand work which has had to do with the preserving of fruits, preparation of clothing, transportation and storing of fuel, the preparation of the home for the coming winter may culminate in Thanksgiving.

Box for Nuts or Small Candies Made from Stiff Paper. Cut on Solid Lines. Fold on Dotted Lines. Hook Slits into Each Other at Back

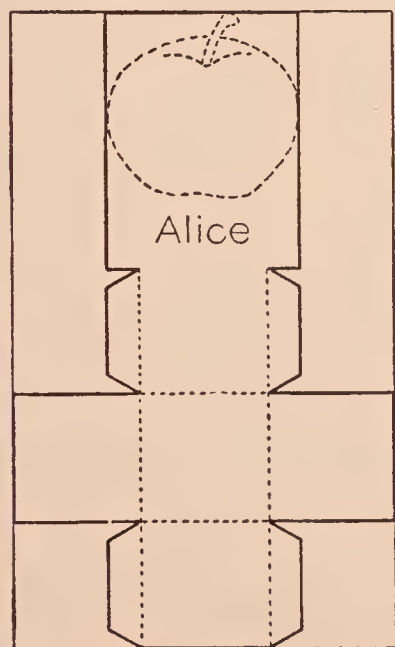


Front of Box

■ Black
— Orange

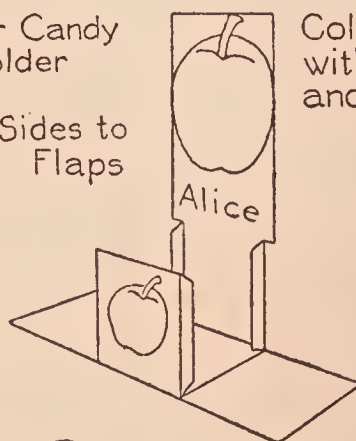


Back of Box Showing How It Is Fastened together

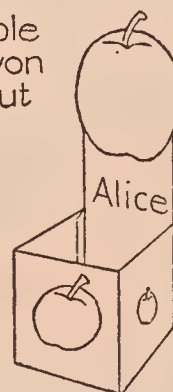


Nut or Candy Holder

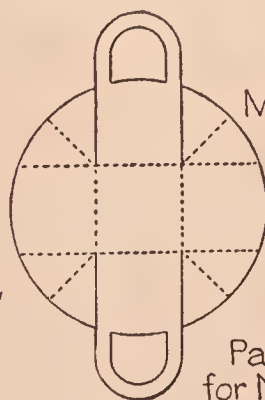
Paste Sides to Flaps



Color Apple with Crayon and Cut out



Cut from Paper $4\frac{1}{2}'' \times 7\frac{1}{2}''$
Sides and Bottom $1\frac{1}{2}'' \times 1\frac{1}{2}''$
Flaps $\frac{1}{4}''$ wide

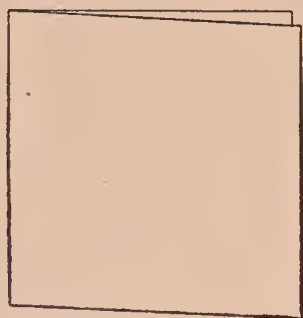


Make Bottom $1'' \times 1''$
and Circle $3''$ in Diameter

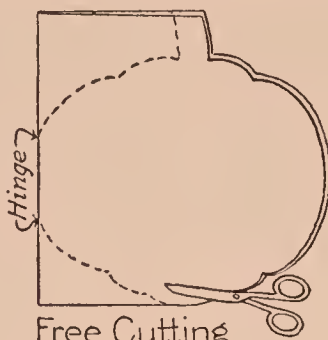
Paper Basket for Nuts or Candy



THANKSGIVING SUGGESTIONS IN PAPER CUTTING



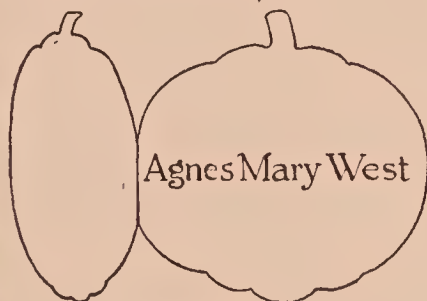
3" X 6" Colored
Construction Paper



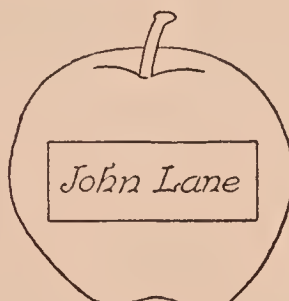
Free Cutting



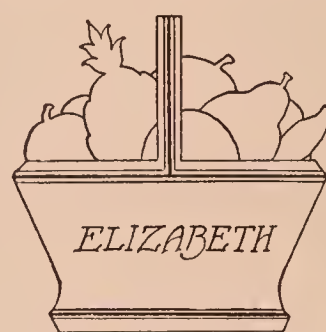
Markings of Pumpkin
Drawn with Colored Crayon



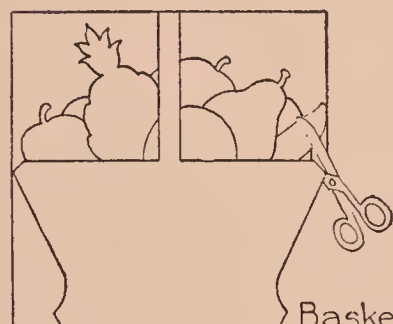
Pumpkin
Place Card



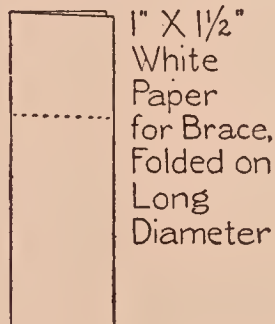
Apple
Place Card



Fruit Basket Place
Card



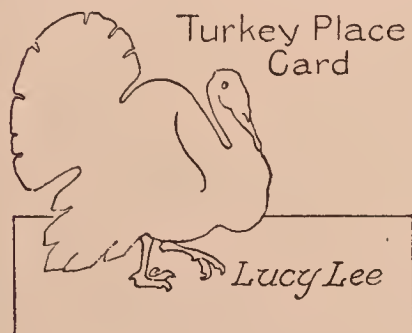
Basket with
Fruit Shapes Colored with Crayons



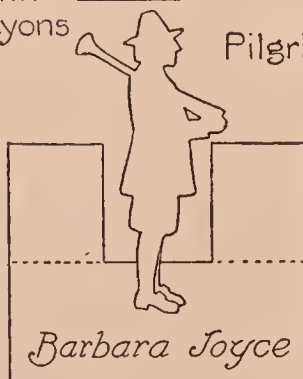
1" X 1½"
White
Paper
for Brace,
Folded on
Long
Diameter



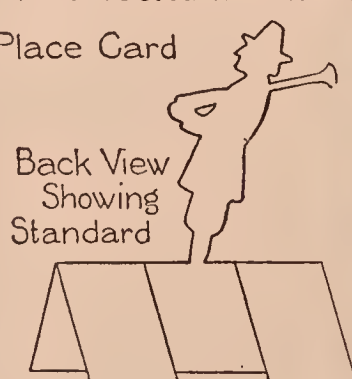
Back
of
Basket Shape Showing
Brace Pasted in Position



Turkey Place
Card



Pilgrim Place Card



Back View
Showing
Standard

OTHER THANKSGIVING SUGGESTIONS

A *scrap book* telling the whole story may be made, or several separate books, such as a booklet telling the story of our fruit cellar, a clothing book, a house book—each page a room in our house; or a family book showing father, mother, brother, sister and baby. Pictures for these books may be given to the child, either already cut out or to be cut, according to the age and ability of the child.

Other Hand Work. Additional suggestions may include making clay fruits, drying and painting them to go into baskets; crayoning pictures of fruit to cut out and put into picture baskets; building churches with the blocks; making the inside of the church; painting church windows by floating colors (see section on painting), and drawing window frames about them or pasting on strips of paper for frames; making place-cards for the Thanksgiving table; making nut baskets to place at individual places, and arranging other decorations for the family gathering.

EASTER

What is it to the child? It is a time when every one is glad, and he is glad, too. The message of the Church is quite beyond his grasp; it may even contain hurt for him, because of his ignorance of death, but the message of great joy in the return of life is quite within his comprehension, and already he is full of its pleasure. The going of the snow, the melting ice, the budding trees, the dandelions, the robins, the eager play out-of-doors with fewer wraps, have all filled him with joyous excitement and pleasure. To help him to realize this season of “wake up” to its fullest, with the realization of God as the life-giving force, is to make Easter an uplifting good for the child.

How shall he participate?

By planting and tending a few seeds in a pot.

By sprouting seed on a dampened flannel.

By enjoying Easter eggs and Easter baskets.

By making and sending Easter messages.

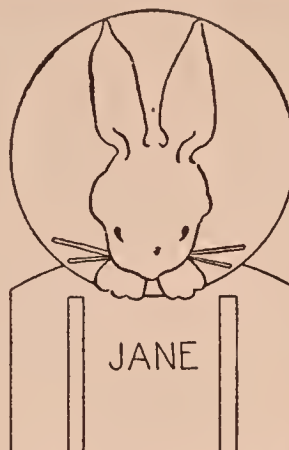
By hearing songs and stories of spring and renewed life and prayer music.

What about Easter presents? So much that is suggestive of presents confronts the child in the stores weeks before Easter that it is hard to keep away from this idea. If we help him to prepare baskets in which to receive his eggs or candy, or in which to place those he gives to others, we may counteract the harm that threatens. Remember always to let the emotion to go over into constructive action. Let the child try to copy for himself the things he sees and wants in the stores. Let him buy what he can earn and save for, and give him at Easter just enough to make him feel that he has not been neglected.

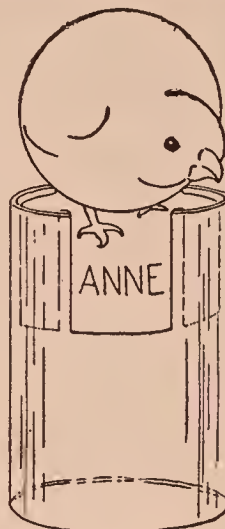
What about the Easter rabbit? It is a lie, and an unnecessary lie. Though it is a serious wrong, we can all see an excuse for our tale of the “stork,” but



Paper Cutting. Cut leaves and stem from green paper, flower from yellow, and flower pot and saucer from brown



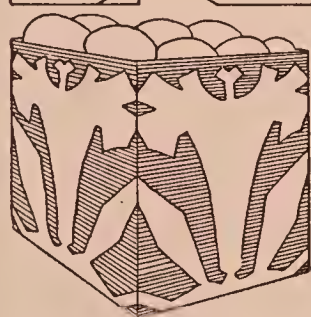
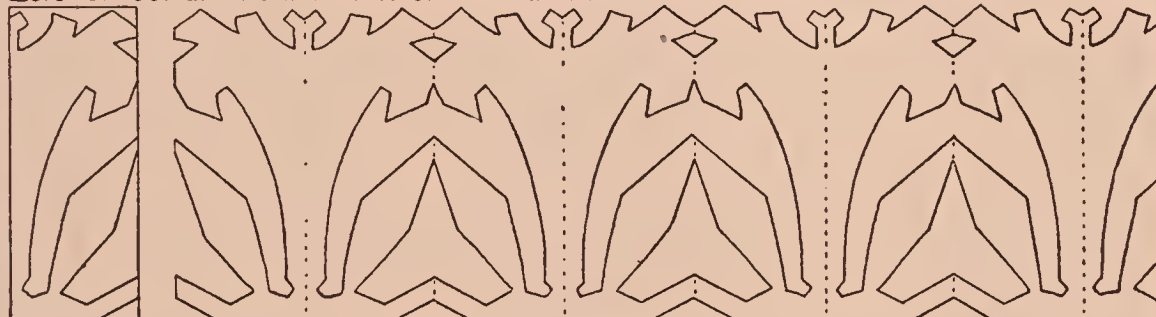
Place cards to slip over edge of glass



Easter Card. Draw rabbit on folded card and cut out



Card

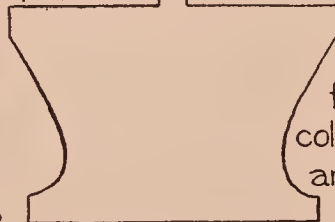


Design Applied to Box for Candy Easter Eggs

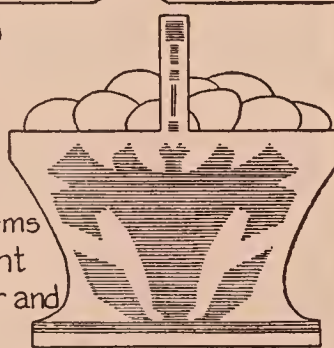
Easter Lily Cut-Paper Design

Cut basket from colored paper, folded

Adapt lily design to basket



Cut egg forms from bright colored paper and arrange in basket



Completed Basket

EASTER DECORATIONS

whatever fun it is, there is no reason for the rabbit story. However, children love to talk of the Easter rabbit just as much when they know that rabbits do not really lay eggs as other children who have been misinformed. There is an added joy of superiority because they really know.

Hand Work. Permitting children to dye their own Easter eggs doubles the joy in having them. There is the joy in the activity, the pleasure of seeing colors come, as well as discovering how Easter eggs come to be different from other eggs.

For dyeing eggs, get any one of the reliable dyes from the drug store. Protect all surfaces well with newspaper, and protect the child with old clothes or an apron. Follow directions for dyeing eggs.

Use the colors left over for experiments with old bits of white muslin. Dye clear colors; then try mixtures. These bits, when dried and ironed, will make lovely doll dresses; see Miss Barbour's kimona pattern for doll dresses.

Baskets. Use any of the designs the child has learned, or show a new one.

Material: Colored cover paper.

Water-color paper which he may paint.

Drawing paper crayoned.

Paper fasteners; since eggs are likely to be put in these baskets, be sure to fasten on the handles securely.

Stout wrapping paper.

Decorations: Depends on the age and ability of the child.

Little chickens, rabbits, flowers may be traced or cut, or, if the child is young, the mother may give him some already cut-out to arrange.

Table Decorations for Easter Breakfast. The following suggestions will be found extremely helpful:

Cards: Simple cards colored by himself with cut-outs pasted on, or, for the older child, pictures traced on, and the whole painted or colored designs for small poster work may be used for these cards.

Games: The child loves to hunt eggs, and so it is good to hide all about the house the eggs dyed the day before or some "wholesome candies" for eggs in the baskets he has made.

Cooking: The older child loves to help set and decorate the table, and to pare Easter breakfast with special egg dishes.

A beautiful way to center the Easter thoughts is to make an Easter Scrap Book. The little child pastes in pictures which have been cut out and given to him. The older child makes his book, decorates the cover, sews it together, and cuts and mounts the pictures himself. Between the three-year-old beginner and

the eight-year-old the amount of work varies. It is good to save the books from year to year, to review last year's experience, and to note improvement.

The subjects of pictures in this work should deal with the return of spring, and always contain a church picture to give it its religious bearing.

CHRISTMAS

This day, the day of all days for children, must have more detailed mention. There is a wealth of spiritual, social, aesthetic, dramatic and manual development to be derived from this season. Just as soon as Thanksgiving is over—often before it comes—children are anticipating this day of days, and long after it is over—even sometimes in midsummer—we find them still living over and dramatizing the Christmas experiences.

This is the children's day, and parents who recognize the great values and dangers of the time are going to govern themselves accordingly. Whatever presents they themselves give should have been made long before. There isn't time now for elaborate preparations for others without taking time which belongs to the children. Mothers will see to it that their nerves and poise are quite equal to the strain of the season's excitement, and that the days of the vacation season will be joyous and happy because there are no frazzled nerves and tired bodies to be sensitive to the slightest misdemeanors of the children. Women who are not in the atmosphere of the home may afford this luxury if they will, but an earnest mother cannot, in justice to her children, go into all sorts of miscellaneous entertainments and Christmas preparations.

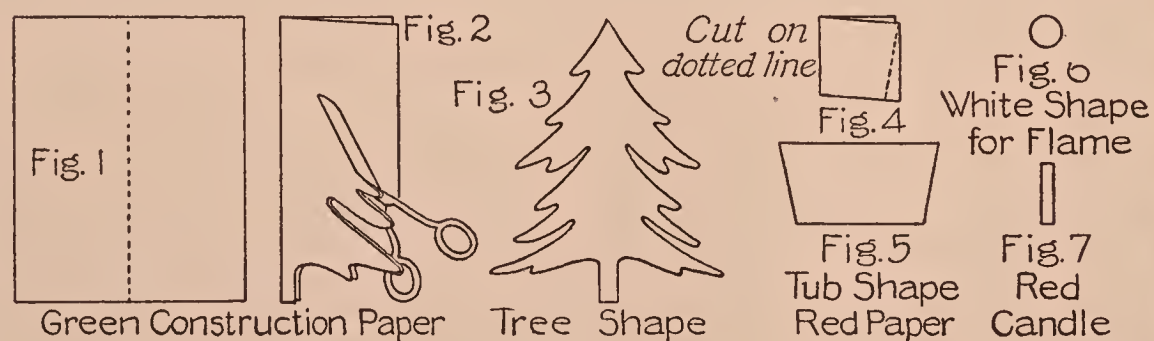
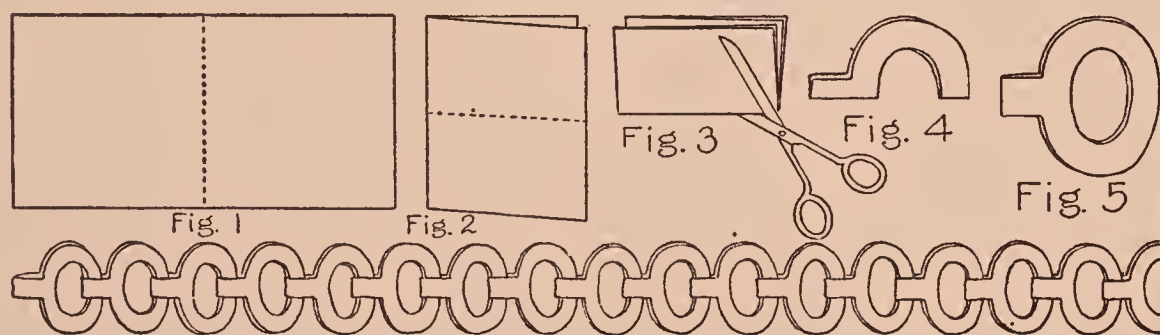
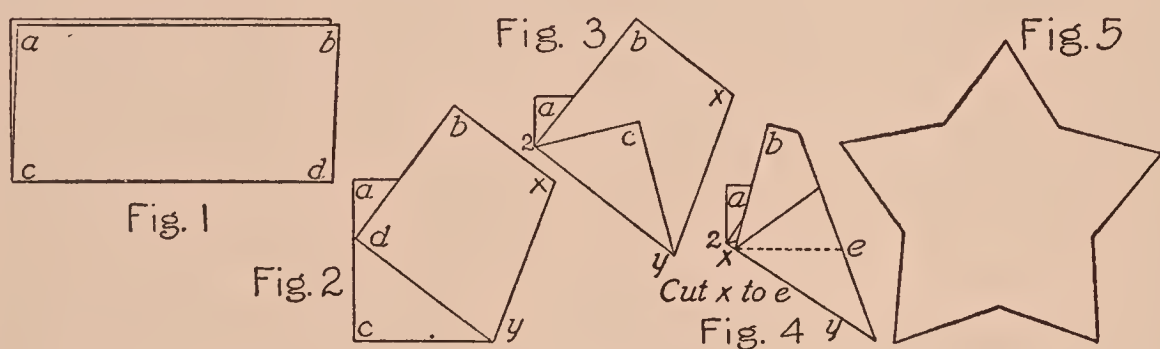
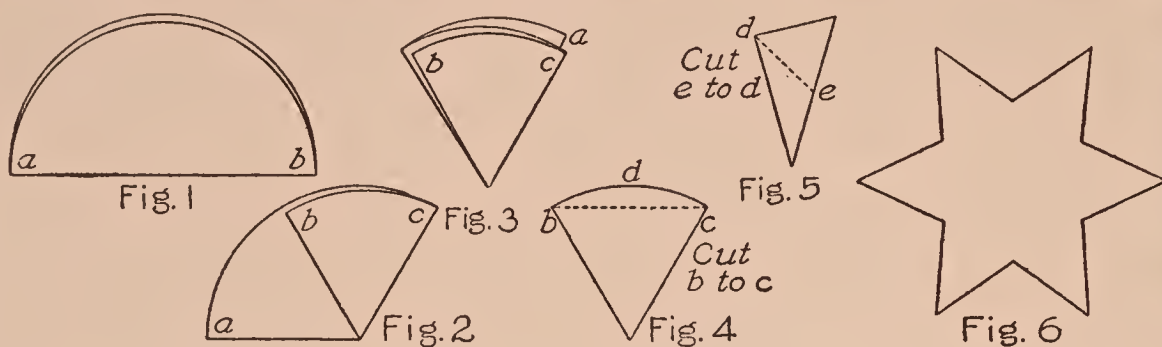
Santa Claus. The legend of Santa Claus may be the means of giving the child a rich and beautiful conception of love and service and joy, which will live as a working force through his whole life, or, improperly handled, it may be the means of destroying his faith in the honesty of his parents and in the truth underlying the more valuable stories we tell him—even of religious truths. "Oh, you said Santa Claus was real, and he ain't. How do I know this Jesus story ain't a lie, too," exclaimed little Johnny. It all rests with his parents whether little Mary agrees with Johnny, or whether she agrees with Betty, who had just passed her first Christmas knowing who Santa Claus really is. Her mother asked, "Betty, what do you think about telling children there is a Santa Claus? Do you think it is wrong?" "Why, no, Mother, he is really true, just like as true as you and 'daddy', 'cause you and 'daddy' and lots of other kind people are Santa Claus." This child passed her happiest Christmas making believe in Santa, writing him letters to send up the chimney, and helping him give gifts as of old. Only frequent slips in her conversation, which she hastily corrected, showed that she knew she was continuing a play.

It is the way children are taught to accept Santa Claus which determines whether the good old Saint is to be a lifelong joy or a lasting hurt. At the time we begin to talk of Santa, the child is living joyously in other imaginary lives. He has imaginary playmates; Peter Rabbit is real to him; his dolls are real; he gives the same life and feelings to everything about him. There are no abstract ideas of love, service and generosity, but these ideas are all mixed up with the people who show these traits. Santa Claus may be made to embody these great conceptions which the child could not otherwise get. Santa Claus should stand for all that is fine, generous, sacrificing, jolly, joy-giving. He gives because he wants happiness to reign through the land. He doesn't give as a reward for goodness. As a symbol of parental love, he gives to good and bad alike. He is not a revengeful, punishing spirit, but purely the Spirit of Love. Parents make a mistake to appeal to children to be good in order to receive from Santa. Of course, to set a prize to be earned, as is discussed in prizes and rewards, is another matter. Santa may be appealed to to reward effort, but not for punishment or revenge.

Santa is a busy man; he needs helpers. Every little child who can make the least kind of gift for others becomes Santa Claus's helper. He begins to take his place as a part of the spirit of Christmas. He finds that mother, father, brothers and sisters are all busy helpers. Thus, parallel with the myth, we build up in the child an idea of the loving labor and sacrifice every one is making at the Christmas season. He becomes a part of the great spirit of good-will. If he has been helped to regard Santa Claus as the symbol of all this, and has not been fed up with all the impossible tales of coming down the chimney and the like, he will realize that there has been no lying to him—merely a symbolic way of telling about a real thing.

I do not mean to say that the child is not to have any of the chimney stories; he will pick them up elsewhere, if not at home. The story may be told: "They say he comes that way; I myself never caught him in the chimney; what do you think about it?" This leaves it easy for the child to believe as he pleases.

I cannot believe that it is necessary to rob children of all the joyous participation with other children in the belief of Santa Claus. One of my early playmates converted her family to this view when she came home from a playmate's house and threw herself upon her mother, crying, "Why doesn't Santa Claus come to our house? I've been just as good as I could be." This child was loaded with toys, but Santa did not bring them. Her dismayed parents suggested her hanging up her stocking that night. The nickel she found in it gave her more joy than all her other gifts. The next babies in that family enjoyed regular visits from Santa.



CHRISTMAS DECORATIONS

The Christmas Tree. Shall Santa bring the tree or not? This does not seem to be a vital question, but it is doubtless better that this belief should not persist after the child has reached an age to anticipate a tree. The three-year-old will recall the tree Santa Claus brought him last year, and this will encourage anticipations for the next Christmas. By his fourth year he will be eager and excited over the trees he sees in the market, and will beg for one. He may be given the choice of letting Santa bring it all beautifully decorated or of buying it and decorating it himself. The chances are he will choose the latter course. It may be brought home and kept outside where he may enjoy it, dance around it, hang all sorts of colored papers or crude hand work on it. Santa can just as well bring it in from the back porch and decorate it after the child has gone to bed as easily as he can bring it from the store.

Children a little older are inspired to use their spare time in devising decorations to be used on the tree. These may be kept in boxes until the day before Christmas, that hardest of all days to live through, when the children may bring it in, set it up in state, and joyously decorate it. Your ideas of art and theirs, of course, may differ. After bedtime you will find it necessary to rearrange or remove a few decorations and often add more, but the work of decorating the tree and the joyous dances about it which are sure to follow provide the most wonderful excuse for having the tree at all. It spreads the fun over two days, the tree getting its full share, instead of pouring it all into a short hour.

The afternoon before Christmas, with its dances and spontaneous games about the tree, followed by the lighted tree, the quiet Christmas songs and music, or suitable phonograph records, crowned by the Christmas story told as St. Luke gave it, may be the most beautiful thing about Christmas. The real meaning of the season, with all the aesthetic beauties which the ages have given this season, has a chance here which would be utterly lost next morning in the joy of Christmas gift getting. After dinner the stockings are hung, and the great excitement is toned down by the quieting influence of Christmas Eve.

Here are a few decorations which the children may make themselves. With the addition of large colored balls, strings of tinsel, and some "snow," quite lovely effects may be produced. All the merry gew-gaws for which people spend so lavishly only add to the confusion and clutter of the tree. In simplicity is beauty; this we should aim for.

A Sane Christmas. Little June had had a poor home. At the age of three she lost that and was adopted into an adoring family, eager to make up to her for all she had missed. For days before Christmas the various members had entertained her with tales of what Santa would bring to a good child. June was naturally a quiet good little girl, but the bottled-up emotion of looking for-

ward to such pleasures, coupled with the added strain of giving no offense to Santa, well nigh wore out her self-control. Christmas morning, the center of attention, June received her gifts. Each member was so eager to make her joyful that they drew her attention in every direction with "Oh, June, see what a lovely doll!" It was June here, June there, and "What do you say, June?" with no time to choose and enjoy what most appealed to her. Her cheeks were soon flushed, her eyes unnaturally bright; she showed all kinds of danger signals. But the eager family, unaware of the great emotional strain, gave no heed, until suddenly when a big brother handed her a lovely toy she screamed and threw it in his face. Then she kicked and threw the other toys about until her mother, realizing the mistake, took her up in her arms to her own room, there to quietly forget all about her tree in doing something else.

This was an extreme case, but how many similar scenes occur in many homes each Christmas morning. Children quarrel over their toys, and in every way behave like little "demons." When night comes, if by good chance the excitement has worn the children to sleepiness, instead of the more usual nervous wakefulness, parents drop exhausted with the remark, "Thank goodness, that's over for another year."

Look back to our fundamentals in the establishment of desirable habits. Can we find any reason or excuse for such days? Such tense, nervous excitement, bringing with it scoldings, punishments, injustices are all wrong, and if Christmas must mean these we are better off without it.

How shall we manage to have the right kind of Christmas? Surely Christmas should be the crowning joy day in every family.

First, we should fix clearly in mind things Christmas must stand for, as well as the kind of situations in which fundamental habits we are seeking to form must grow.

Christmas stands for:

1. Love shown by parents to children (in understanding and control, quiet and sympathy, as well as gifts), and by children to each other.
2. It should stand for the Greater Love of this family for those less fortunate, and include some acts to express this—an outlet to the emotions we seek to stimulate.
3. It should furnish a rich background of spiritual enjoyment, of happiness.

In the memories of these days parents should be seen as the poised, quiet, happy sharers in this great day of the children's year; should be felt as a strong, sure, sane, stabilizing influence, securing the memory of a perfect day.

A Common Folly. Parents save up many surprises with which to overwhelm the children at one time. Money is wasted in knickknacks of all sorts



Fig. 1

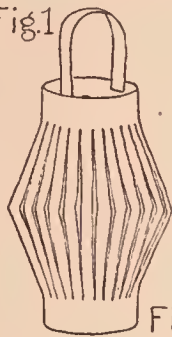


Fig. 2

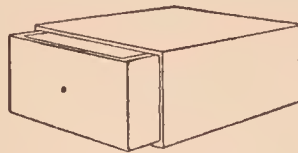
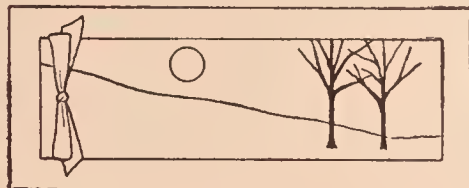
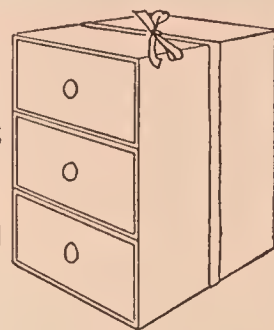


Fig. 3. Boxes from the drug store

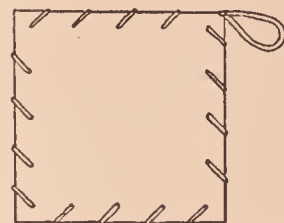


Fig. 4. Paper fasteners for drawer pulls

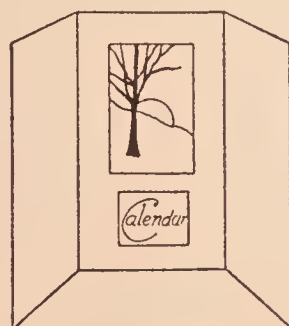
Fig 5
Boxes all bound together by colored paper, pasted securely around them and tied



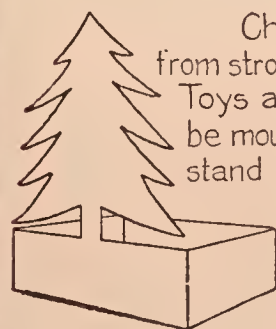
Buff blotting paper with dark blue cover paper over it. A lighter blue makes the sky; white the snow; dull orange or yellow the moon. Trees are cut in black or drawn with crayon



Two layers of cloth with asbestos between. Large-eyed needle and yarn are used



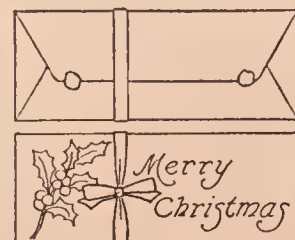
For pictures see suggestions for blotters



Christmas tree cut from strong green paper. Toys and candles may be mounted on it and stand about it



A practical string box may be made by enameling a small tin box and decorating it with design cut from wall paper.



Fill envelope with sachet and tie with ribbon

MORE CHRISTMAS SUGGESTIONS

“just to make fun for Christmas morning.” Parents forget that the simplest things, and few of them, make all the fun necessary for the child. The thought in most families where adoring relatives send in surprises of all kinds should be rather how to select and choose from the many surprises the most worthy and wholesome ones. Of the Christmas tree decorations more will appear later. It is wise either to put away for a “rainy day” many of the gifts coming through the mail and to remove from sight as soon as possible such gifts as have to be presented Christmas morning because relatives are present at the tree.

In buying presents for the children wise parents will spend money only for the few most essential and durable ones. One or two greatly desired gifts, as the doll in its carriage, a coveted train and track, with the other things sent in by friends, will be quite enough to make a joyous Christmas for the unspoiled child. He has a chance really to drink in the joys of his gifts by concentrated attention instead of jumping hysterically from one to another of many things, until by the time he is through he is too worn out to enjoy any of them.

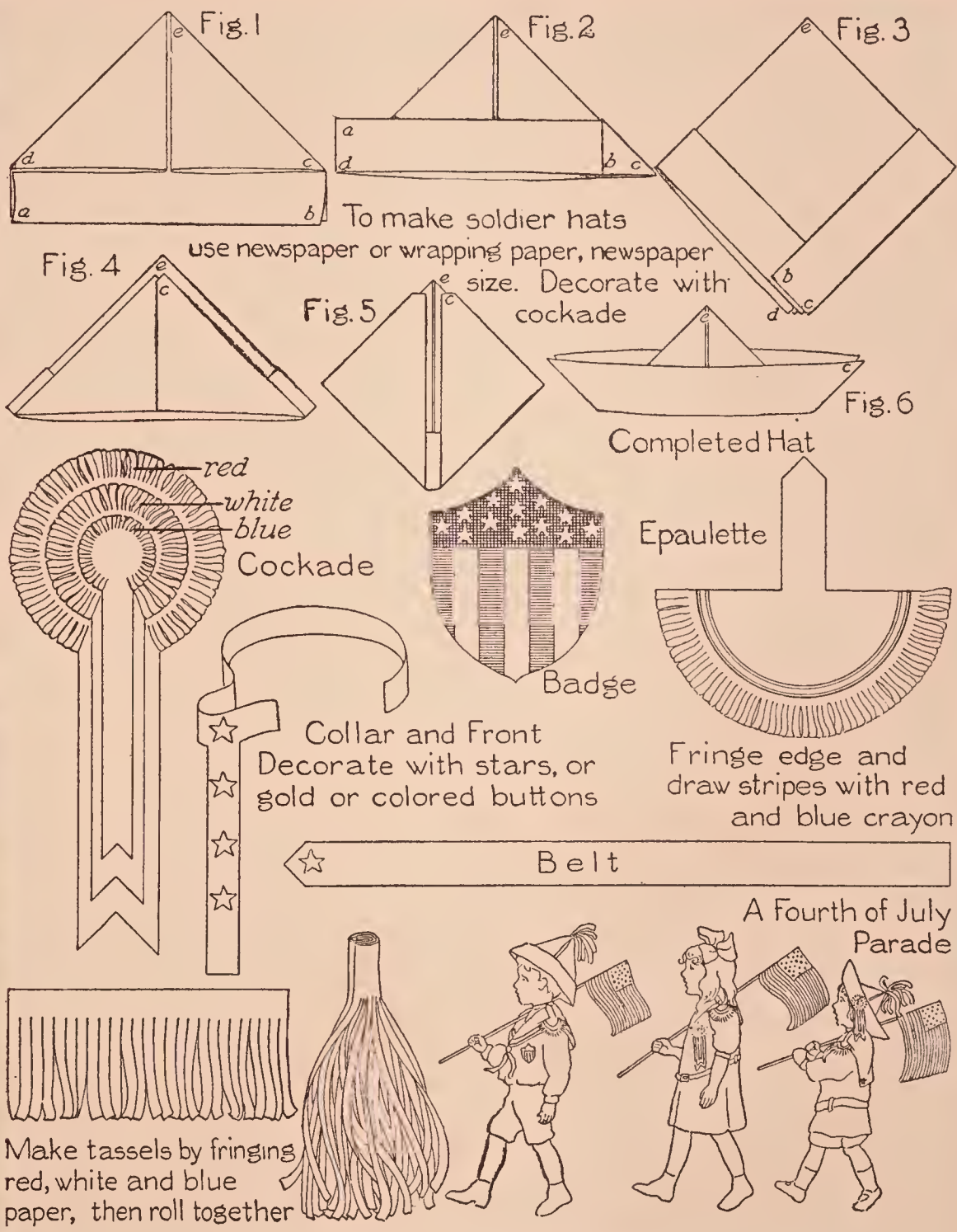
Another device helps to scatter the excitement. Instead of loading the child at one time, he finds joy in getting gifts at various times throughout the day.

It will be found a beneficial thing to control the excitement somewhat by letting the children direct themselves entirely; letting them find their own presents and open them without knowing that eyes are concentrated upon them; by not handing out another gift until the first is examined and laid aside of the child's own accord; and third, by keeping the “oh's” and “ah's” of the adults' pleasure within bounds. The joyous, uninfluenced expression of the child's pleasure, aside from the controlled joy of the whole celebration, is ample reward for the adults' efforts. Try it and see. The grown people who know all the difficulties and strains of these festivities are the only ones capable of exercising the control necessary to make the memories of these times unalloyed joy. We can't expect it of the children, and we have no right to subject them to the strains.

PATRIOTIC DAYS

There is so little that young children can really comprehend about patriotism that it is a mistake to try to teach much. Give every opportunity to participate with others in these days by decorating with flags, giving the simple story of why we celebrate the day, and teaching a simple flag salute and one of the patriotic songs. The child may revel in the joy of the day, however, especially the Fourth of July, by getting ready for it—earning and saving pennies to buy a flag, making paper flags to use at home, also soldier caps, belts, drums, etc.

The story of little Marian and her flag will illustrate how much more children value things they have made themselves than those they buy. Marian was



PATRIOTIC DEVICES

in a kindergarten of fifty children. Word was sent in by the principal that the kindergarten children were to carry flags and go with the big children to greet the President of the United States, who was to pass the school. The excitement was likely to spoil the day's program, so the teacher quickly discarded her plan and made a new one to make the most of the occasion. She told who the President was and the occasion of this greeting. They had a school march and gave the flag salute. Then all the teachers and children consulted together to see what they should do about flags; only about a dozen were to be had. Of course the children suggested making them, and after many had offered suggestions as to the procedure, they went to work. When the time came each child had what represented his best effort at flag-making to carry to the front. Little Marian was selected to present the flowers to the President; and she was lifted into his machine and greeted by him as she did it. She looked very solemn, and as soon as the children were dismissed she rushed home, and throwing herself into her mother's arms, wept bitterly. Her amazed mother found the cause to be that in giving the flowers to the President she lost her flag, "the flag I made all myself, mother," and no offers of flags at the store could console her. Only the chance to make another eased the situation.

How to Make Flags. For little children the stripes may be drawn. They color the stripes and the blue field, pasting on a few stars; or, they may paste red stripes, a blue field, and stars on white paper.

These may be fastened by thumb tacks to a stick.

Older children may crayon white cloth and fasten to a broomstick or other stick.

It is wise always to have a real flag to copy. There is the problem of getting the stick on the proper side, the starry field right end up, and the proper number of stripes. No other exercise can give better familiarity with the flag.

In the stress we place upon patriotic ideals it is wise to emphasize the country's need for men and women who love and serve their country, who can think clearly and carry out their plans—creators and executors. For the child the patriotic emphasis is upon his immediate neighborhood playmates, who can sacrifice personal gain for the good of his group. Our soldiers in the society of tomorrow, in which our children shall play their parts, may not be called upon, let us hope, to serve their country in war, so we purposely put little emphasis on plays dealing with soldiers and warfare. Because these are dramatic children, if left alone they might play soldier. We cannot prevent it if we would, but we can select what elements are of value to emphasize in soldier plays.

Soldier Caps. Use properly folded newspaper or wrapping paper, newspaper size, to make caps to wear.

Decorations. Fringe three layers of tissue paper: red, white and blue, and roll into a tassel for the tops of the cap.

Mount red, white and blue cockades on the sides, decorate with stars, etc. Let the children work out many ways.

Parades. Let children make their costumes—paper for the smaller ones, cheesecloth for older ones. Decorate wagons, kiddie cars, scout runners with flags, cheesecloth wound about wheels, handles, etc., and have a parade. The six- and seven-year-olds may plan some songs, stories of the day, and salutes.

There is little time for idle mischief while preparations are being made, and all the suppressed excitement can have a legitimate outlet in the parade, especially when adults help out in the marching. These neighborhood affairs have many advantages for adults and children alike.

ST. VALENTINE'S DAY

Children's joy in this day is in the exchange of valentines, no matter how crude. This furnishes unlimited opportunity for occupation for days ahead, and may be turned to good account by parents, if they appreciate the values of the work. Too often children turn out valentine after valentine, carelessly made, each new one with no sign of improvement over the last. Here the mother must help him to see the need for improvement. Always the child should do his best, though his best may not appear much to any one else. Careless work forms bad habits, and it wastes time and material; the child should early learn this. However, what may look like waste to us may be an honest use of material.

Valentines. Here are some suggestions for valentines, in case the child needs such help.

Paper lace from candy boxes or lace doilies may be used with pictures; flowers cut from wallpaper books or colored magazine pages may be mounted on various shaped and variously colored pasteboard.

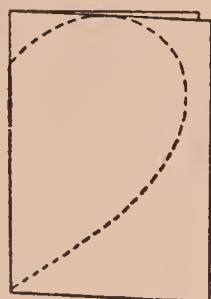
The "surprise" forms described on page 264, under title of "Snow Stars," may be used to make lace for these valentines.

Very dainty backgrounds may be made by using water-color washes over a good water-color paper. Lace and pictures can be mounted on these.

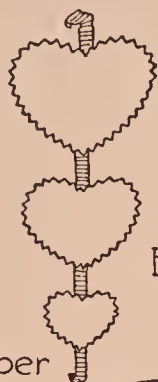
To raise parts of the valentine higher than others, the child can fold a strip of stiff paper, as shown in the illustration—forward, back, forward, back, securing the ends with paste under the part to be raised.

There are nice problems for the child to solve in making his valentines stand up.

Lacing ribbons through several pasteboard hearts and securing the ends is another problem.

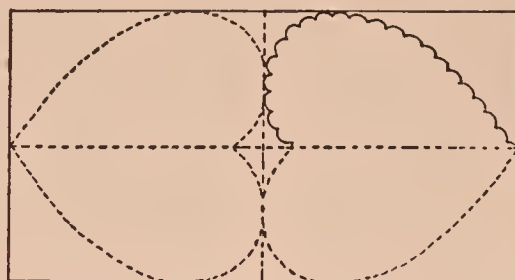


Fold and Cut
from Red Paper



Mount
on
Ribbon
for
Bookmark

For Valentines



Paste Picture or Verse Inside

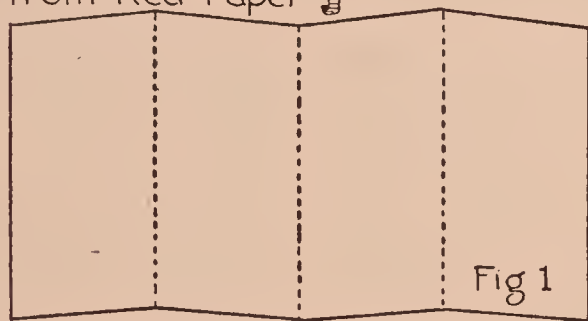


Fig 1

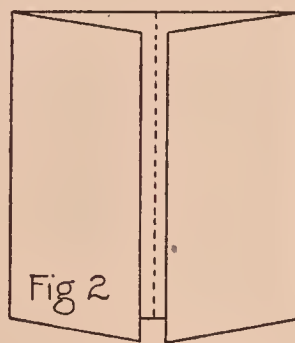


Fig 2



Fig 3

Edge

Fold Backward on Middle Fold

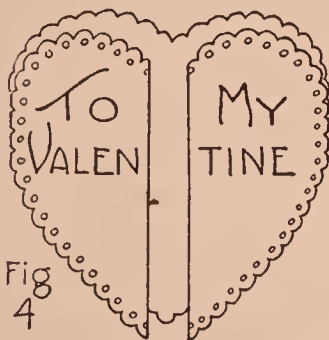
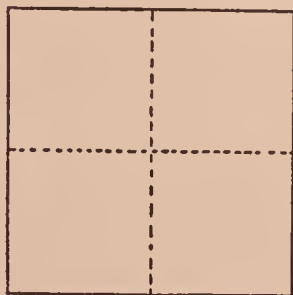
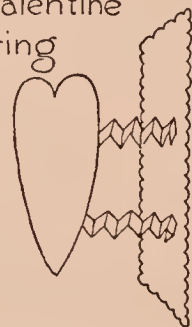


Fig 4

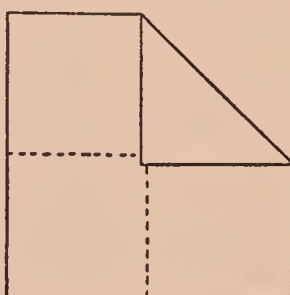


Heart Raised
above Valentine
by Spring

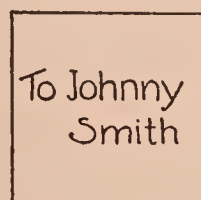
To Raise Parts of Valentine—Fold
Strip of Paper as above; Cut in Half.



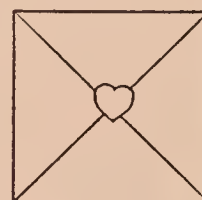
Square Envelope



Fold on Dotted Lines

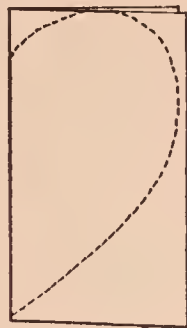


To Johnny
Smith



Paste Sides Together—
After Valentine Is Placed
Inside—Seal with Red Heart

SAINT VALENTINE'S DAY



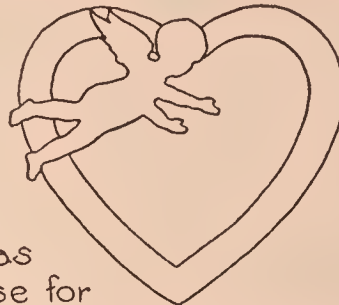
Cut Heart from Red Paper



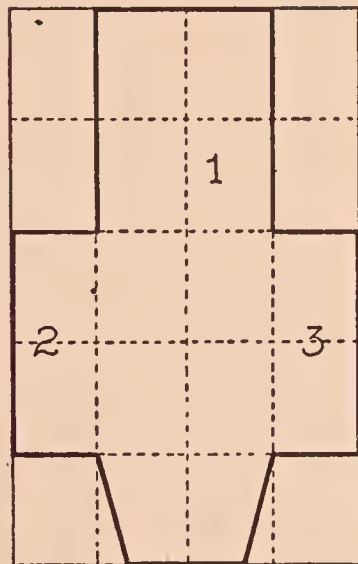
Cut Smaller Heart from White Paper



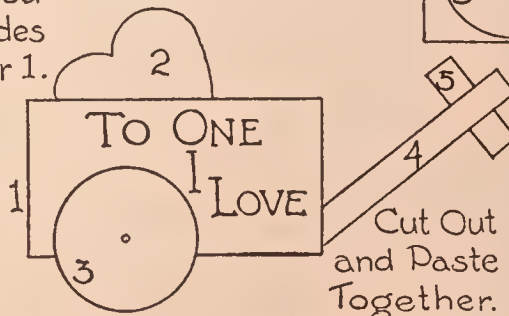
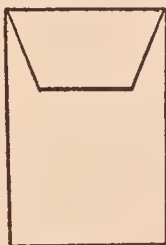
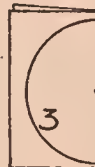
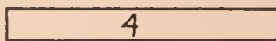
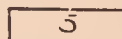
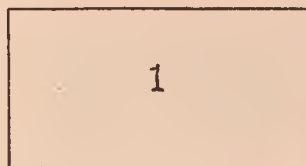
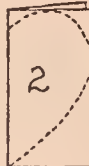
Cut Cupid from Red Paper.



Paste together as Illustrated- Use for Invitations or Paste Verse on for Valentine

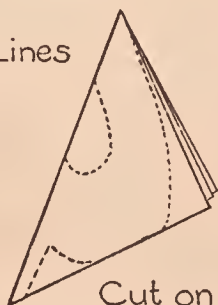
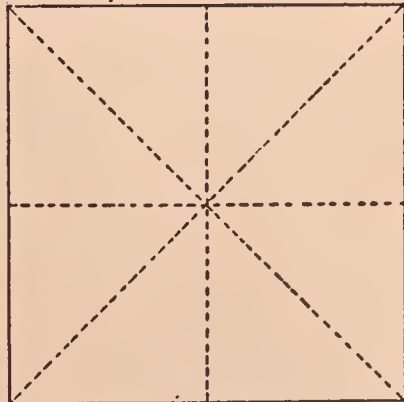


Oblong Envelope. Divide One Side of Oblong into Fifths-the Other into Fourths-Cut on Heavy Lines.Fold on Dotted Lines so that 2 and 3 are turned under 1. Paste Sides of 2 and 3 under 1.

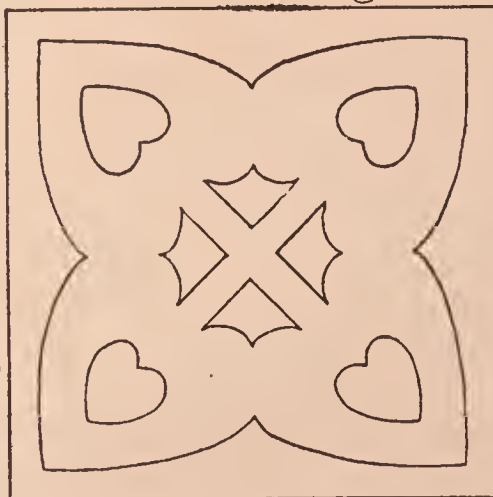


Cut Out and Paste Together.

Cut Square-Fold on Dotted Lines



Cut on Dotted Lines and Mount on Colored Paper for Valentine.



SAINT VALENTINE'S DAY

Children also try to make the envelopes in which to send their valentines. In the illustrations are some suggestions.

Save valentines from year to year as guides in helping the child to work out his own problems each year.

MAY DAY

Values. This day has much the same joy as Valentine's Day. It may be made especially valuable educationally by helping the child to make as pretty and as strong baskets as he is capable of producing. He should know the names of the flowers with which he fills them. May-day baskets should have longer handles than other baskets and be fastened securely, since they are to hang on door knobs.

BIRTHDAYS

Last, but not least, comes the child's own special day—his birthday. It is a day of particular celebration.

It is a strange and unnatural child who is not thrilled at the idea of a birthday. One's own is always far more exciting than any other, but a chance to celebrate the birthday of any member of the family is thoroughly enjoyed. A cake and candles with ice cream or a special dessert is often all that is necessary to make it a success, but these happy family occasions should always be treasured. They are pleasant memories when the family is grown and its members are far apart, and a desire to help make it a success brings out all the unselfishness in a child at the time. On his birthday each member of the family takes his place as a special individual and receives his special attention. It is a good exercise for the rest to forget themselves for the one day in the happiness that they can give to others.

For each child it is well to make him feel that this is his day to make others glad he was born, because of the happiness he can give to others. Instead of the "getting" idea, which is sure to dominate, the parents should help him think of the giving, too. A party is his chance to give joy to others, to make them have a good time, etc.

The same cautions about giving presents should prevail here as at Christmas, —a few well selected gifts of the *most needed* things, but not showers.

Perhaps this is the best time for the mother to give the party, but even here, more often than not, it is wise to let the child plan his own party, picnic or entertainment. A variety of celebrations is advocated because if a child always expects a party some year when this is not possible there is too keen a disappointment. Always encourage and preserve the child's natural joy in the simple things.

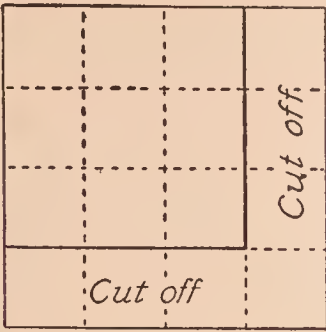


Fig. 1

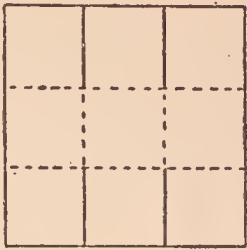


Fig. 2

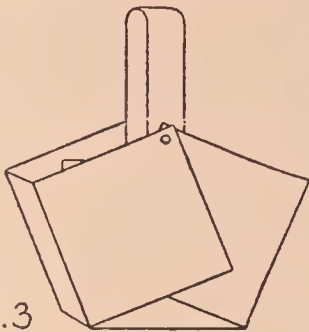


Fig. 3

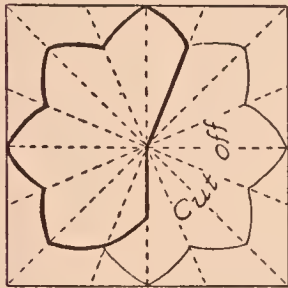


Fig. 1

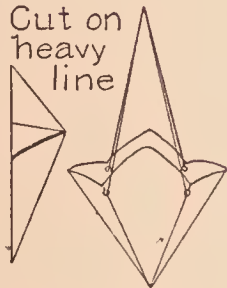


Fig. 2



Fig. 3

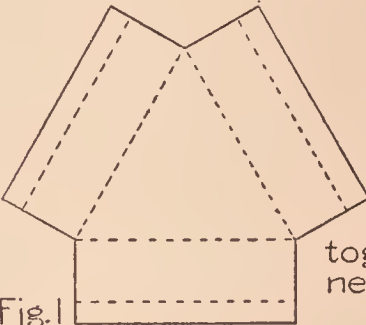


Fig. 1



Fig. 2

Fold on dotted lines and tie together at corners with ribbon

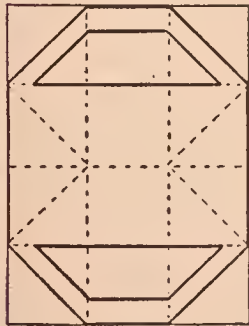


Fig. 1

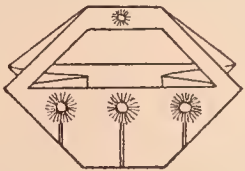


Fig. 2

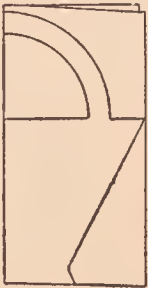


Fig. 1

To make this May basket cut two flat pieces of heavy paper and sew together. It may be decorated

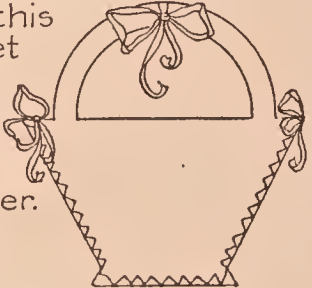


Fig. 2

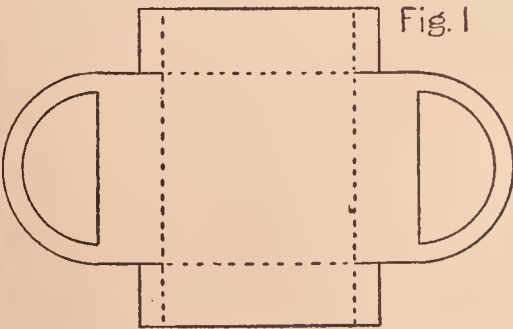


Fig. 1

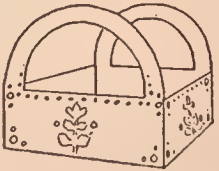
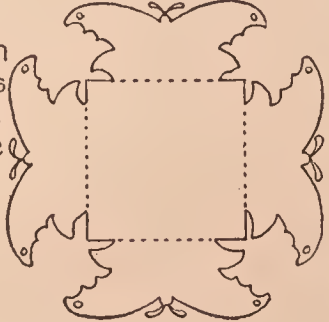


Fig. 2

Fold on dotted lines and tie



FOR MAY DAY

CHILDREN'S PARTIES

There are two kinds of children's parties :

1. Those which the mother gives for the child, and
2. Those which the child himself gives.

The first kind educationally is good once in a great while. A child is often invited to parties at other houses, and frequently he receives prizes and favors. The mother finds it wise to give parties in return, for these courtesies should be exchanged. But there is really no need for them oftener than once a year, and seldom as often as that.

Dangers. Elaborate parties may spoil the children's joy in the simpler ones. Your own child's party may do little harm, but when your child has attended many others of the same kind to which he is invited you realize that he will have had more than is good for him. Food which is rich and in too great abundance, eaten at a time to spoil his appetite for meals, is usually the accompaniment of these parties.

Perhaps the story of a few of one little girl's parties will illustrate the second class.* These are real, from the standpoint of the joy the child herself gets and what her friends get from them. One child refused to go to an elaborate party that she might come to Dorothy's Valentine party. Such parties are a real education for the child, as you will see. Her parties usually start thus :

"Mother, may I have a party at such and such a time?"

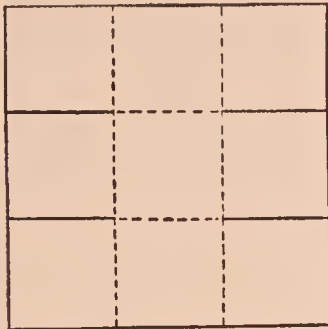
"Certainly, if you will get it ready. I'll help you all I can, but I'm too busy just now to do much."

"Oh, thank you mother. You needn't worry, I'll do it." Then she makes her plans. Often she spreads the news before the invitations are out, and before long she may have the whole neighborhood in after school hours helping to get ready.

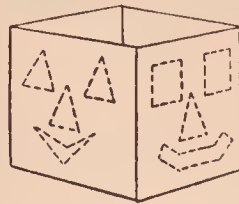
Her first affair of this kind was given just after her fourth birthday. A simple birthday party, with the gifts, made it so delightful an experience that she wanted to repeat it right away. Her mother explained to her that there could be no presents, of course.

First, she wanted the children invited for her. "But this is your party; you must invite them yourself." After talking over invitations, she decided what to say. She couldn't write, so she told her mother what to print for her. It was so simple that her mother had to reënforce the invitations over the telephone. It read: "Come to my party to-day." Dorothy laboriously copied the printing. Then, dressed in her play clothes, in rubber boots and under an umbrella, she

*Author's Unpublished Records.



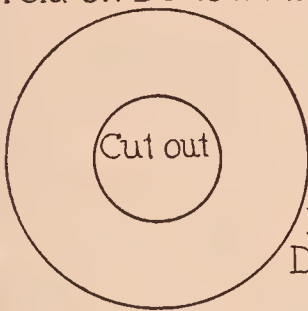
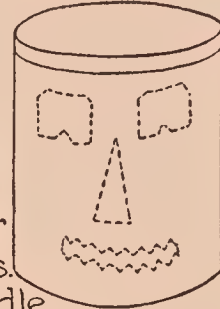
Cut on Black Lines
Fold on Dotted Lines



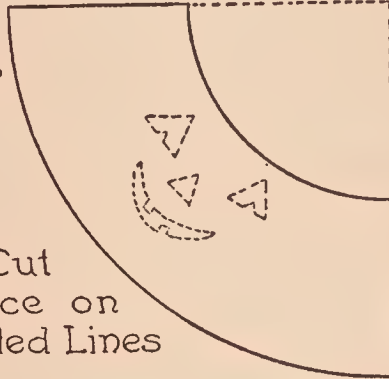
Folded and Pasted
Cut Face on Dotted Lines



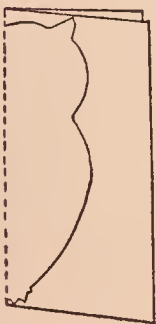
Cut from
Orange Paper
Paste over Holes.
Place Candle
inside



Cut
Face on
Dotted Lines



Cut from
Orange Paper
Paste over
Holes.



Yellow Eyes
Green Nose
Orange Feet to
Paste on Owl



Place Card

Cut from
Black Paper



Mask
Cut from
Colored Paper



For Invitations



For Borders



Mask made from
Old Pillow Slip



HALLOWE'EN SUGGESTIONS



carried it around for all to read who were to come. The one invitation sufficed for all the guests.

Soon came the time to make provision for food. Her bank held enough pennies for graham crackers and a banana for each guest. She counted bananas by putting a clothespin for each person and the proper number of pennies beside each clothespin; an arrangement over the telephone with the grocer fixed the price at two cents each. She then took her ten cents extra for the box of crackers, and went all alone to the grocer with her order. (She didn't know that because this was the first shopping expedition alone her mother was at a safe distance to watch her.) On her return she put a paper plate for each clothespin and folded a napkin in it; then she piled all her plates on her table, ready to use, and took her nap. When the guests arrived, she received them herself, her mother being one of the guests of honor.

Her last party, about four years later, was a Valentine party. It took her two weeks to make and distribute the invitations, the place cards and a Valentine surprise for each member. The neighborhood entered joyously into her plans and helped in the preparations. She wrote down her own list of games, checked up the number of prizes needed and purchased these, arranged the table, and did all the work. This time she ordered ice cream and cake—her mother's gift. She expected to make her own cookies and sandwiches, heart-shaped, and to make the fruit gelatin, but an unexpected visitor from out of town prevented this.

There have been all sorts of parties involving various kinds of purchases, handwork preparations and some cooking, grading in complexity from the crude first party to those with more elaborate plans; and each party has not only been a social joy but a practical lesson in numbers, writing, cooking, buying, organizing and entertaining, as well.

It is too bad that the parents' love for giving a party should rob the child of the satisfaction which he might get from giving his own parties.

It is interesting to note that Dorothy has always specified for every party, "Don't dress up." The children have come for a good time.



The Kindergarten



The Kindergarten



THE kindergarten is a school for the child between the ages of four and six years. Froebel, its originator, believed that such an institution was needed to supplement the home, since the child has needs during this period which the home can but partially meet and which the school does not recognize.

These needs arise from the development of his play instincts, and require for their full satisfaction the companionship of children of his own age, and the opportunity for experimentation in larger variety than the home can furnish. The kindergarten should, therefore, fill the gap that exists between the home and the school. That its work furnishes a real basis for that of the grades has been confirmed by practical experience, as well as by more recent study of the child's development. As a result, the kindergarten has been adopted by all progressive countries.

While the daily program varies in the different kindergartens, and the ideal one is not so formal as the one described below, the description of one which is fairly typical will show in what way it can add to home training and make a real "child garden," as the name implies.

A Kindergarten Visited. The purpose and method of the kindergarten can be most readily understood by a consideration of its daily procedure. An imaginary visit will assist in making its purposes clear. The visitor does not wonder that the children enjoy a place with so homelike an atmosphere. Here, on each side of a fireplace, are low cupboards that contain quantities of play material of different kinds, and at each end of the room are several small tables, put together so as to form a large one, upon which the children use the material. Under the window seats of the large bay-window are drawers filled with picture books and mounted pictures which the children are free to use at certain times. On the opposite side of the room is the piano, and at the end opposite the fireplace is a sand table, that, at this time, contains the children's representation of a nearby park. Under two of the windows are plant stands, on which are boxes filled with ferns or blooming plants. Over the fireplace hangs a picture, and on the walls are pictures of children at play.

The room shows many evidences of the children's recent efforts. On a small table is a collection of fall fruits and vegetables, which they modeled the week before and painted in appropriate colors. On a window sill is a tray of envelopes made by the children, to hold the assortment of seeds they have col-

lected for their spring planting. On a screen is a festoon of autumn leaves, and paper cuttings of leaves of different kinds. The ledge above the blackboard is decorated with sprays of bittersweet leaves and berries, and below it hang festoons made of rose hips and pumpkin seeds in alternation. On the mantel is a vase containing barberry twigs, with their brown leaves and scarlet berries, and on the piano is another containing milkweed stalks, with the pods just bursting into feathery whiteness. The decorative material the children have gathered on their walks together to the nearby gardens, fields and roadsides, along with the vegetables, seeds and fruits, is a part of the harvest which the autumn brings—the harvest of beauty, which has been used for the adornment of their playroom in ways of their own suggesting. It is evident that through their play the children have shared in the thought and effort of mankind during the autumn season.

The Program of Exercises. The work of the morning gives further evidence of their participation in the thought of the season. At a signal, the children bring their chairs to the circle for the opening period of conversation, song and story. The song of greeting is followed by several autumn songs of their own choosing. Since it is Monday, the children are bubbling over with stories of their week-end experiences, which they are encouraged to tell. The kindergartner tries to connect each child's contribution with some phase of their previous work or play. In order to connect the children's thought of the country more closely with their own lives, she tells a story of the little boy who learned that, although the farmer took many things from the farm to the city children, he always had to take back from the city some things that his children at home needed. She then asks the children whether they would like to tell this story with their blocks. The suggestion meets with ready assent.

Since the period of conversation and story has occupied nearly half an hour, a period of games follows, that the children may have opportunity for exercise before proceeding with their building. The memory of park playground apparently lingers in the children's mind, as the merry-go-round is the first game asked for. In this, the children form two circles, one within the other, both facing inward. The children in the inner circle join hands and form the merry-go-round, while those on the outer circle "ride," each one placing his hands on the shoulders of a child in the inner circle, ready for the dancing around the circle together. This suggests the dancing of the leaves, as the next game asked for is "Like a Leaf or Feather," in which the children imitate dancing leaves. A sense game with fruits and vegetables follows, and "The Apple Man" brings the period to a close.

The children now form into two groups, one of which goes to the farther

table to continue work upon several sets of doll furniture, to be used in the near future for the furnishing of a doll house. The children in the remaining group move the small tables away, leaving a clear floor space across the end of the room. Six of the children are selected to make the farmer's fields and buildings at one end of the space, while the others build the city houses and stores at the other. The children get from the cupboards the enlarged fifth and sixth gift blocks, and begin their building on the floor. Since they have used this material many times, it is not long before the farm buildings are ready in the one space, and the city street, with homes and stores, in the other. The children then represent the farmer taking his produce to the city, by means of a toy horse and wagon, and his returning to his home with his wagon laden with articles from the city stores. The other group of children is invited to see the city and country picture. The "picture" in question is left on the floor to be enjoyed further. The session closes with a period of songs, finger rhymes and stories retold by the children.

How It Meets the Children's Needs. To understand the true significance of the kindergarten, it is necessary to consider the means and methods by which it meets the children's varying needs.

Among these, the need for companionship with children of the same age is one of the most insistent. In the home, the child is too often either a monarch or a subject. In the kindergarten, he is an individual among his equals. From his play there—at one time with a little group, perhaps of his own choosing, and at another as a member of the whole—he experiences the joy of mingling with his fellows and is stimulated to his best effort by the opportunity for comparing his own achievements with those of his companions. The joys of companionship are often interrupted, however, because the members of the little company have not yet learned the laws of right conduct. The children learn these laws readily, however, by the experience of losing favor with their playmates if they offend. It is through such experiences that they come to realize right conduct as a means to a desirable end—happiness in their play together. Many of the kindergarten exercises afford opportunity to prove this, but none more so than the games, because they are so largely co-operative. In the playing of these in the right spirit, the children's joy in each other's companionship reaches its height.

Some Purposes of the Games. It is because the games meet so many of the children's needs that they deserve especial attention. Among these are the physical ones. The period from three to six years is one of such rapid growth that energy is generated faster than it can be used. This is the reason why children run, jump and dance in sheer joy in the activity. It is for the purpose of

affording the right exercise for this overflowing energy, which cannot be repressed without injury, that the various running, skipping and dancing games have been evolved. Since these are necessarily rhythmic, they not only aid the children in gaining control over their movements, but become the means by which they learn to understand and express music on this rhythmic side.

To give opportunity for such expression, exercises in which children "do what the piano tells them to do," that is, march, skip, dance, or run, have come into vogue. With such exercises as a basis, the children have no difficulty in learning the games of another group,—those in which they dramatize the activities of adults—of the mother in the home, the farmer in the field, or the carpenter or blacksmith in his shop. These not only satisfy the imitative instinct, but acquaint children with fundamental forms of human effort, and the place and value of these in life. They have, therefore, a double social value—that gained from a knowledge of the activities imitated, and from the children's playing them together.

No list of kindergarten games could be considered complete that did not include still other games—those in which children measure their strength, skill, or alertness with that of others. Of these, such games as "Drop the Handkerchief," "Dodge Ball," and the many sense games and hiding games are examples. These serve to stimulate children in new ways and contribute a new element to their enjoyment. In view of the varying needs which the games meet as a whole, and the opportunity for happy comradeship which they afford, it is not surprising that they should be rated among the most valuable of the agencies which the kindergarten employs for the child's development.

Purposes of the Work with Materials. Because it furnishes the child with occupation as well as companionship, the kindergarten meets another of his fundamental needs. It does this by means of its organized play material. This was originally devised by Froebel, but has been improved in recent years, as the result of a better understanding of the child's development. It consists of a series of educative playthings, which Froebel termed "gifts," and plastic materials, such as sand, clay, paper, etc., by means of which the children can carry out their own play motives. The gifts consist of a set of balls, one of each of the six standard colors; of a set of the fundamental forms—the sphere, cube and cylinder; of four sets of cubes, each differently divided for building purposes; and of several series of tablets, sticks, rings, lentils for flat representation. The plastic materials—sand, clay, paper, etc.—are used for modeling, folding, cutting and weaving. These lines of work Froebel designated as occupations. The gifts and occupations were intended to complement each other and to form a system of play material. The general purpose is to provide material that will

keep pace with the child's advancing intelligence by its own increasing complexity. The play with this material satisfies the kindergarten child, because it gives him the opportunity to experiment and to carry out his own play purposes. The material can be used in numberless ways. If the kindergartner wishes to gain an insight into the interest and abilities of the different children, she allows them to choose their material and the use they wish to make of it. Equipped with such knowledge, she can plan work that will satisfy them and lead in right directions.

If she wishes to know how fully the children have grasped the essential features of a house, and what power they have of expressing this, she will give them all the same material, and ask all to build a house, each in his own way. When these are completed, the houses are examined and their merits discussed. Because of the excellence of some one house, the children may all wish to build one like it. If the children's technique needs improving, the kindergartner may direct the doing of this, calling attention to the way in which the blocks are placed to produce the best effect. If the children had difficulty in making some portion of the house, such as the roof, an exercise in the making of this would be likely to follow in the near future.

At another time a few children may be selected to work out an idea together—a garden or park on the sand table, perhaps. In this, the children agree upon the general plan of the representation, the best material to use and the part that each is to take. In the process, however, the children may discover the need of additional material—blocks for a seat, colored lentils to represent the flowers in a bed, or paper to represent a tree in some way. Such an exercise leads to the doing of other and related things, such as the modeling of vegetables or the making of folders to contain garden pictures. These are a few of the many ways in which the children use the material to work out their own play interests. The work satisfies them, because it affords opportunity both for individual effort and for effort in common. It gives children a growing sense of power, and gives them a feeling of kinship with the workers of the field. The work with the material, too, ranks high among the agencies which the kindergarten employs.

Other Needs Which the Kindergarten Meets. The child from three to six years has other needs which the kindergarten meets. One of these is the need for out-of-door work and play. For this the garden and nature excursions, to which many references have been made, furnish the best agencies. Owing to climatic conditions and the lack of space, the outdoor garden work is difficult, if not impossible, in large cities. Outdoor games and walks are possible at certain seasons, and a knowledge of gardens, fields and roadsides, with the

plant life common to them, can be gained from these. They also afford the opportunity for a knowledge of bird life, and of such pets as children in the neighborhood may have. Such knowledge is indispensable as a basis for several lines of work with the material. It is the care of plants and pets that children need to develop—the right attitude toward living things. In most kindergartens the plants in the kindergarten window box, the seeds which the children plant in spring and the goldfish in a globe are the only means by which the attitude can be cultivated.

Since children wish to sing, even before their voices have evolved from the monotone stage, it is important that they should have also the right beginnings in song. By the selection of songs that appeal to children's interest the skillful kindergartner helps them to gain control of their voices and to sing with pleasing effect. She believes that the little repertoire of songs which she teaches them to sing as they might tell a story will form a nucleus from which will develop a love for beautiful music. Because the importance of right beginnings in music is increasingly appreciated, the musical work of the kindergarten, both from the side of song and rhythm, has received increasing attention in recent years.

It is through the agencies mentioned—the games and songs, the play with material, the outdoor observation and the stories and rhymes—that the kindergarten educates the child during the period when he needs a larger life than that of the home and a freer one than the school is yet willing to accord him. The school itself has gradually adopted these agencies, however, and hence it recognizes their value in the kindergarten and the significance of the kindergarten as a whole, as it did not in the earlier years. As a result, the kindergarten is being increasingly recognized as the true basis for the work that is to follow.

From the program described, it is evident that nature observation has been emphasized, and that certain observations formed the thought basis of the work done. The different lines of work carried out—the play with material, the games, the songs and the stories—all served as means of expression of the children's thought.





What Do Growing Children Need?

CHILD welfare experts consider the following necessary for the child's best growth and development:

Shelter:

- Decent, clean, well-kept house.
- Plenty of fresh air in the house, winter and summer.
- Warm rooms in cold weather.
- Separate bed, with sufficient bedclothes to keep warm.
- Pure, abundant water supply.
- A comfortable place to welcome friends.

Has your child these?

Food:

- Three good meals a day.
- Clean, simple, appetizing, well-cooked food.
- Meals at regular hours, and sufficient time for them.
- Dinner at noon for children under seven years of age.

Has your child these?

Clothing:

Change of underclothes and nightgown at least weekly.
A change of stockings at least twice a week.
Warm underclothing and stockings in cold climates.
Heavy coat, cap and mittens for cold weather.
Shoes, free from holes, and long and wide enough.
Foot protection against rain or snow.

Has your child these?

Health and Personal Habits:

Hands and face washed before meals and at bedtime.
Bath every day, or at least once a week.
Natural bowel movement every day.
Teeth brushed at least twice a day (morning and night).
Regular bed hour.
Twelve hours of sleep at night, with open windows.
Correct weight for height.

Has your child these?

Recreation and Companionship:

A safe, clean, roomy place for outdoor and indoor play.
At least two hours outdoor play every day.
Constructive and suitable playthings and tools.
Some one with sympathetic oversight to direct the play.
The right sort of playmates.

Has your child these?

Education and Work:

Schooling for at least nine months a year from seven to sixteen years of age.
Not more than two hours of "chores" outside of school hours.
Not enough work, either in school or out, to cause fatigue.
Vacation work, if any, must allow ample opportunity for the proper amount of rest and recreation.

Has your child these?

Religious and Moral Training:

Opportunity for religious training.
Proper moral and spiritual influence in home.
Teaching of standards of right and wrong in daily life.

Has your child these?

*By Permission of United States Department of Labor,
Children's Bureau, Washington, D. C.*

Score Cards

THERE are all sorts of ways of keeping score or records. When the mother has the idea, she will think of many ways herself growing out of the child's interests. With a little three-year-old this worked beautifully. Her difficulty was in keeping her clothes entirely dry. She was given a long strip of soft gray paper with an envelope of white rabbits and orange carrots with a green leaf already cut out. Dry in the day time up until noon meant a white rabbit pasted on; dry until night meant a carrot. When her border was done she was very proud of it. A misstep meant an empty space to be filled in after the rest was done. It was filled in later because the finished card was to impress success and wipe out all feeling of failure. She made borders of Christmas trees alternated with red balls, and many others which help to correct other faults. She saved these as she made them, and put them in a little scrapbook. Besides the ideas of design, of neatness, and spacing that she acquired, she had a tangible record of real achievement through effort.

I have spoken of records, suggesting the use of stars of all colors; other markers may be secured from the Dennison firm or at any stationer's store.

The record card may be made up in all kinds of ways. The child himself may help to cut and arrange pictures for decoration, or the mother may make the card. The card may even be used as the beginning of keeping accounts, to be spoken of later under "Number Work."

Guides were spoken of earlier. It will be well to go more into detail about these.

The little child, of course, may not read these, but opposite printed words may go the picture which he can understand, or pictures alone may be used. By the age of five, though we do not wish to teach reading now, the child may learn to read these few words. By the age of six or seven, words alone may make up the guide cards. These guides are mostly home-made affairs to suit the situation. A very excellent one for the six-year-old may be had free by writing to the Child Health Organization of America, 370 Seventh Avenue, New York City, called the "Healthland Flyer." Ask for a catalogue of their Health Charts; they have a great many excellent ones. It is prepared like a railroad time table, with a map of Healthland inside, with all stops marked, such as Orange Vale, Drinkwater Station, Hot Soup Springs, and many others. The train schedules are lists of duties to be performed at the various hours of the day, such as Bath-tubville, 7:00 A. M., East Toothbrush, 7:10, and so on through the list of before-breakfast duties. These are exceedingly clever, and may be used as they are or may suggest similar cards to be made in the home.

One little child caused constant trouble by only partially washing her hands

by dabbling them under the faucets with no water in the bowl, and thus dripping dirty water all over the bowl and floor, and soiling the towels unnecessarily. She was completely broken of the bad habit and became perfectly reliable in every detail by having a card pinned beside the bowl for her to follow. She dictated the list while her mother wrote it down. The card is long since lost, but she yet counts her steps and follows the rules. The following is the list:

TO WASH FOR MEALS

1. Put the stopper in the bowl.
2. Turn on hot and cold water until there is plenty in the bowl.
3. Roll up your sleeves.
4. Get your wash cloth.
5. Wet it and wring it out, so the water can't drip.
6. Wash every part of your face.
7. Look at it in the glass to see if you rubbed all over the face.
8. Soap your cloth.
9. Rinse the soap off.
10. Rub every bit of your arms, wrists and hands, back and front.
11. Use nail brush.
12. Wipe out the bowl with your washcloth.
13. Wring out the cloth and hang it up.
14. Dry your hands *thoroughly*.
15. Hang up the towel.
16. Use your nail file.

The Sleeping Chart. This is usually the responsibility of the mother, but the child can learn to read time and to mark down nights when she gets into bed on time. The reward for the proper hours at night may be the omission of the day nap when the child is old enough to drop them. This chart often shows Mary just why she has naps occasionally and enlists her willingness.

Time Cards. Some children must learn to do a given task within a given time. Show the time on the clock, and show how far the hand may go while the task is being done. Give stars for every successful effort. If a child is used to dallying, give more time at first and gradually shorten it. He can see and mark his own success.

For Sulking. One mother whose child was in the habit of pouting had an attractive, artistically-illuminated card made to help her in her morning duties. After every two or three directions, she wrote "smile" or put some funny thing to do to make her smile. This was changed from time to time. In this case the mother also worked diligently to find the physical cause for Mary's sulkiness.



Score Card Feeding

COURTESY OF HOME ECONOMICS DEPARTMENT
UNIVERSITY OF WISCONSIN

SCORE card of children's diet from three to sixteen years of age. Guide for mother in proportioning meals. For child over seven to watch his own choices.

	Score Points
1. If the child eats any food set before him.....	5
If he likes at least ten kinds of vegetables.....	10
2. If the child's diet is adequate in the following respects.....	85
(a) For 1½ pints to 1 quart whole milk a day.....	35
(If milk is skimmed, add extra milk fat to other foods in form of butter or cream.)	
(b) Adequate protein supply each day.....	15
(Should have at least 1 gram [30th of ounce] for each pound he weighs.)	
60% of protein should come from animal sources, which means that child from 3 to 6 should have at least two servings from the following:	
Egg (if it agrees)	Meats (not fried) or fish (these need not be served every day)
Custard	Small serving of veal, chicken, beef
Sponge cake	liver (is also rich in vitamins)
Homemade cottage cheese	

(c) Two generous servings daily of vegetables other than potatoes.. 20

One of the foods in the lists marked with * should be served every day:

*Tomatoes (canned)	*Raw grated rutabaga	*Head lettuce hearts
*Raw grated carrots	*Chopped raw cabbage	*Raw celery cabbage

All foods marked † are valuable for the iron they contain; these are rich in vitamins:

†Spinach	†*String beans	Swiss chard
Carrots	†*Peas	Cauliflower
Asparagus tips	†*Cabbage	Turnips
Cooked rutabagas	†*Beet greens	Celery (stewed until tender)

Used occasionally with little children:

Beets	Parsnips	Oyster plant
Okra	Egg plant	Onions

Many of the grated foods may be used with lettuce without dressing or salads or used to garnish other dishes.

(d) At least one serving a day of fruit (fresh if possible)..... 15

*Oranges	Dates
*Grape fruit	Apricots
*Lemon	Grapes
Apples	Peas
†Prunes	Plums
(useful for supplying iron)	Bananas (very ripe, or cooked)

(e) Diet must have iron, found in the following:

†Egg yolk	†Beef	†Beef juice
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(f) Energy-giving foods:

Besides foods already listed, these are energy-giving foods. While important, they are no substitutes for foods given above; they may be added:

†Potato (iron)	Peas (iron)
Macaroni	Lentils (iron) (must be thoroughly cooked and sieved for children under ten)
Bread	Plain cookies
†Graham bread (iron)	Simple puddings
Cereals	Honey
†Oatmeal (iron)	Bacon
Dried legumes	Cooking fat
Beans (iron)	
Molasses	
Jam and jelly	

(g) Energy-giving foods in form of fats:

Whole milk already provided for	Cod-liver oil
Butter	Cream

All valuable for vitamine content.

Score 100%

The following points may be subtracted from the total score of 100 for violating the following:

- | | Points |
|--|--------|
| (a) For <i>tea or coffee</i> , deduct..... | 10 |
| (b) Failure to drink at least five glasses of <i>water</i> each day, one on rising, deduct | 10 |
| (c) Failure to have a normal <i>bowel movement</i> each day, to eliminate the undigested food residue, deduct..... | 10 |
| (d) <i>Lunching</i> between meals, deduct | 5 |
| The normal child should eat three meals a day, including an adequate breakfast. In special cases of undernourishment or overactivity, more frequent meals may be given, but usually less food instead of more is taken in more frequent meals. | |
| (e) For eating <i>candy</i> , besides the small amounts which may be permitted at regular meals, deduct..... | 5 |
| (f) For eating foods <i>too rich</i> for him, deduct..... | 5 |
| (g) For eating unsuitable meats, deduct..... | 5 |
| Tough cuts should be seared and cooked at a low temperature until thoroughly tender. Smoked or pickled meats, such as dried beef, ham, lean bacon, corned beef or sausage should be used only by the older child, if at all. | |
| (h) For eating <i>raw</i> or <i>partially cooked starchy</i> foods, such as insufficiently cooked breakfast foods, or unripe fruit, especially bananas (the latter are to be cooked, unless brown spots on their skins indicates their ripeness), deduct | 5 |
| (i) For eating <i>hard</i> or <i>lumpy foods</i> which he does <i>not thoroughly chew</i> (among these may be nuts, raisins, tough skins, and green corn), deduct | 5 |

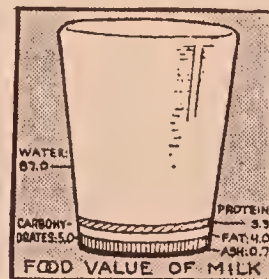
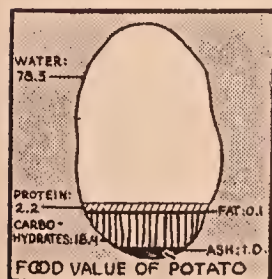







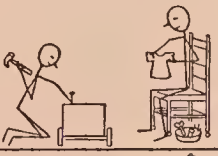














Chart Made to Guide the Child While Her Mother Was Away from Home for A Month

Use Stars for Rewards

	S	M	T	W	T	F	S		S	M	T	W	T	F	S	
								Drank glass of water before breakfast								Ate a good dinner.
								Dressed myself.								Had a good nap.
								Brushed my teeth.								Drank a glass of water.
								Ate all my breakfast.								Made something myself.
								Went to toilet without being told.								Put away my playthings.
								Drank a glass of water.								Washed for supper.
								Aired my bed, hung up my clothes.								Ate a good supper.
								Played out of doors.								Undressed myself, hung up clothes
								Washed for dinner.								Brushed my teeth.
								Set the table.								Went cheerfully to bed.

FM.



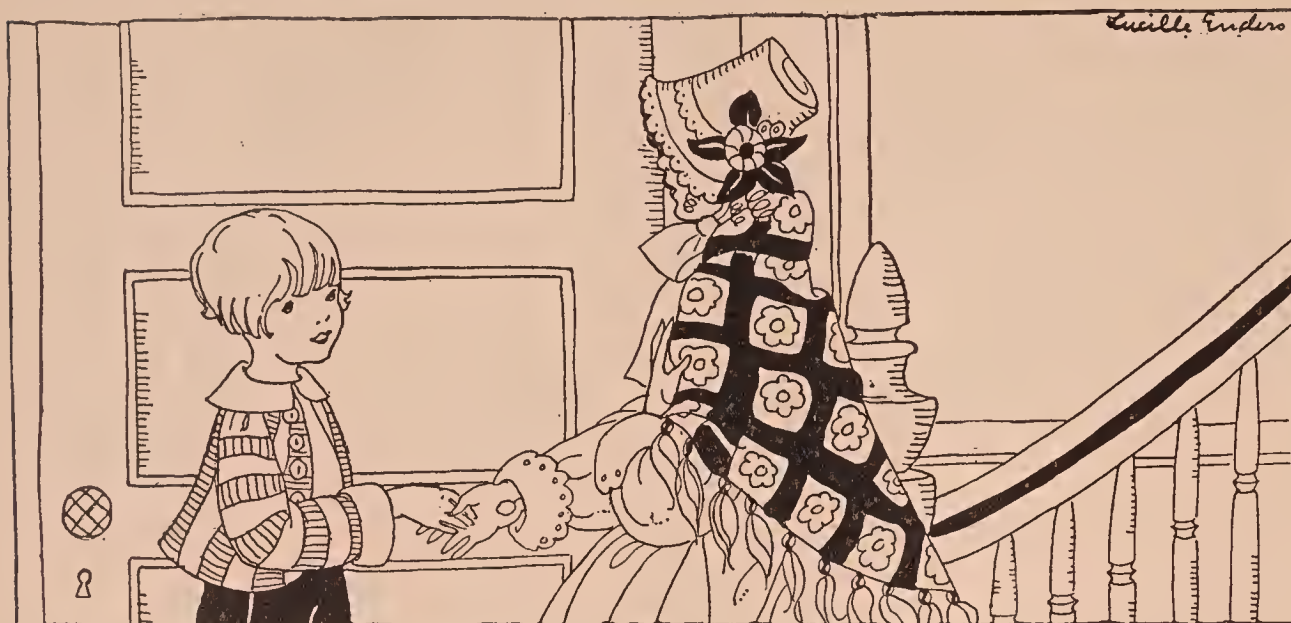
Teaching Table Manners

The following list may be mastered by the end of this period. Score and memory guide cards—using a few points at first and adding more as needed—can be made from them. There are some named here which should already be habits.

He should:

- Not fill the spoon more than half full.
- Never talk with food in his mouth.
- Chew with his mouth closed.
- Sit up straight at the table, never lounging back in his chair.
- Not rest his arms or elbows on the table.
- Wipe his mouth with his napkin before drinking from his glass, and after.
- Wipe his mouth often, to keep all food off his face.
- Not handle his nose, hair or legs while at the table.
- Refuse or accept with "Thank you" all food offered.
- Not break his bread up in tiny pieces or eat from a whole slice of bread.
- Drink from side of his soup spoon.
- Not put all his spoon into his mouth.
- Leave knife and fork properly on plate when through with them.
- Leave spoon in saucer of his cup when not in use.
- Keep bread crumbs on plate or bread-and-butter plate.
- Never put knife in his mouth.
- Use knife and fork correctly.*

*The mere technic of using these is hard to acquire, and is often the cause of trouble. The mother should carefully watch each move she makes in handling her own spoon, fork, etc., and thus help, step by step, the child by such example. Practice without the actual use of food and later with water only results favorably in teaching the use of the spoon.



Teaching Common Courtesies

These Factors Enter. In this important discussion attention may be focused on several factors, as follows:

1. Constant example of parents and older children.
2. Use all situations possible in which opportunity occurs, such as playing tea parties and making "calls."
3. Saving the child's feelings as much as possible before others when he makes mistakes—just as you save a guest's embarrassment when he makes a mistake.
4. Use private signals. Example: A father who touched his forehead with his finger reminded Bessie that she forgot to say "Thank you."
5. No nagging; indifference and continued neglect on the part of the child for serious offenses demands other treatment.
6. Demand only a few necessary courtesies at a time.
7. Count off on score only when a blunder could easily have been avoided. Children are often so absorbed in the unexpected that they do not even sense troubles. Do not punish when it comes from absorption in something else.

By the age of seven the child should have formed the following habits:

1. Greet with "How do you do, Mrs....," usually with handshake or curtsy.
2. Go behind people, if possible, or excuse one's self for going in front. Violation of this courtesy is too common.

3. Joyfully respond to requests, such as getting a pillow, shutting a door, etc., when asked.
4. Wait until an older person goes through the door, and never pushing ahead.
5. Of saying "Goodbye, Mrs...."
6. On leaving after being entertained, taken for a ride, etc., to say, "I have had a pleasant time."
7. Say "Thank you" for every courtesy or gift.
8. Answer questions nicely.
9. Say "Thank you" when one inquires, "How are you to-day?" "I am very well, thank you."
10. Boys of seven always lift their hats or caps.
11. Remove hats on entering building.
12. Reply, "Yes, Mrs. B....," or "No, Mrs. B....," when addressed. This, of course, is drilled in every day by responses to mother, father, and others, in refusing food at table, etc.
13. Should not talk when others are talking.
14. Should not try to tell his stories, unless the visitors ask or show especial attention.
15. Should not try to attract attention to himself away from others.
16. If he must whisper, say "Excuse me."
17. On street cars: Give up seat to elders or a lady, help a woman on and off a car, and enter last.
18. Learn to talk quietly on cars and in other public places.
19. Learn not to attract attention in public places.
20. Extend courtesies to neighbors and to the family, with no expectation of reward.

You are going out to tea to-day,
So mind your manners well;
Let all accounts I hear of you
Be pleasant ones to tell.
Don't spill your tea or crumb your bread,
And don't tease one another;
And Tommy mustn't talk too much,
Or quarrel with his brother.
Say "If you please," and "Thank you, ma'am;"
Come home at eight o'clock;
And, Fanny, do be careful that
You do not tear your frock.

I think it would be lots of fun
To be polite to every one!
A boy should lift his little hat,
A girl should curtsy—just like that,
And both should use such words as these,
“Excuse me, sir,” and “If you please.”
Not only just at home, you know,
But everywhere that they would go.

GOLDEN KEYS

A bunch of golden keys is mine
To make each day with gladness shine.
“Good morning!” that’s the golden key
That unlocks every door for me.
When evening comes, “Good night!” I say,
And close the door of each glad day.
When at the table, “If you please,”
I take from off my bunch of keys.
When friends give anything to me,
I use the little “Thank you” key.
“Excuse me,” “Beg your pardon,” too,
When by mistake some harm I do.
Or if unkindly harm I’ve given,
With “Forgive me” I shall be forgiven.
On a golden ring these keys I’ll bind,
This is its motto, “Be ye kind.”
I’ll often use each golden key,
And then a child polite I’ll be.

Preparation to Meet Company. A score card to be thought over before company comes and checked up *only* after company has gone has advantages. Fines should not be enforced for forgetting here, because the excitement of company and the unexpected behavior of guests often throws the child entirely off his guard. Besides, he has not yet arrived at an understanding of the need for these courtesies. He doesn’t mind when people stumble over his feet or pass in front of him; why should others resent the act in him? The card will help him if he wishes help, but he must not be made unhappy, because he is a child and acts as a child normally acts.

Watch every thoughtful act the child performs and praise him afterwards, to give him self assurance and ease next time.

Rewards and Fines

LAW of Habit Formation. We have spoken of pleasure gained in the performance of an act as the cause of repeating the act until it grows to be a habit; and, on the other hand, of pain in an act tending to prevent its recurrence. There are many acts bringing with them no pleasure which the child can see, but which are of such vital importance in the establishment of necessary habits that they must be insisted upon by the child's guardian. Not only regular attendance at the toilet, but frequently real muscular effort which the child only is capable of exerting; remembering to drink water often between meals; getting washed thoroughly before meals; good table manners, etc. Some of these may be established by careful watching and attendance upon the child; he may be sent away from the table and not allowed to return until clean, or corrected in a number of ways. But so often the mother has much else to think about; she cannot, for example, watch the number of drinks the child takes, and often the recurrence of offenses at the table is so frequent that it is almost impossible to avoid nagging so other means of correction must be found. A system of rewards frequently accomplishes the result most easily and with the happiest of feelings between parent and child. There is the great value also in giving a reward, or throwing the responsibility for watching these things upon the child, and thus bringing about real development.

When to Use Rewards. Rewards should be used only after real thought on the part of the parent, and should never be overdone or abused. They should be used only where most important habits must be established; where we would like to establish habits but do not wish to coerce and in establishing spontaneous courtesies which will mean freedom for the child in after life. A child should not expect to be rewarded for things which he knows he should do or which he sees as *right*. The things for which rewards are given should from time to time be changed. Rewards may be used to help the child where he is having his greatest struggle at this particular time. They are useful also when the one who has been in charge of him must be away and another is in temporary charge. The period of readjustments is often made easier by centering the child's attention on getting his reward rather than on trying out the new nurse. The reward lies with himself. A case to illustrate: A mother had to be in a hospital for some time, leaving her five-year-old with help whose control over the child might be doubted at first. The mother left lists of all the bits of duty to be done by the child. A series of duties to perform before breakfast were to be rewarded, when done, by a red star; a series after breakfast, a gold star; a nap, a blue star; evening duties, a silver star; for every glass of water the maid *saw*

her drink, a mark on a score card. It was understood that each star meant a penny toward the buying of a new doll head she desired. These records were indisputable. For the child each time she looked at them they represented so much successful effort. The maid had very little need for discipline, for the little girl's attention was centered on her task and the reward, rather than setting up her strength against the maid's. This same child at the age of three had great joy in making marks on a big manila paper inside the closet door for victory in doing a certain distasteful task. She put a red mark every time she took some disagreeable medicine without a sound; a black one for a cry. There was no other reward. Napoleon remarked that it was not that he was not afraid before every battle, but that he put his ambition ahead of his fear to crowd it out. And so the reward may be the substitution in many hard places.

What Shall Be Our Rewards? These should not always be the same thing, but there should always be something which is wholesome for the child. Candy and like things should be used only at rare intervals. To learn to know the value of money, the child must have money; so perhaps money may often be used. A penny for the child is as good as larger coins, and will help him to realize how much effort must go into amassing a sum large enough to buy a thing of value.

Forfeits and Fines. A mother had to correct her child again and again for a certain fault, frequently punishing for it. At last she said, "David, you know every time you do this that you are wrong. I have tried to help you in every way I can, but as punishing makes me unhappy and it doesn't help you, we'll stop. You have your money which you earn yourself. Whenever this happens again, I shall expect you to get a nickel from your box and put it in this bank. I do not want money gained from your naughtiness, so we will decide later some cause to give it to." It worked like a charm, and the ill feeling which had existed between the mother and child over the previous corrections entirely disappeared. It became an impersonal thing.

A penny forfeited for every spot on the table cloth, for napkins left out, or crumbs dropped, is often an excellent cure.

Children should not be fined for tearing clothes or for accidents unless from extreme carelessness. Their play freedom must not be injured by too great worry over these things. An opportunity to wash out the spot or mend the tear however is a better correction than a fine. Children are truly conscientious, and they feel worse over these mishaps than they show. A chance to attempt to rectify these accidents makes them more careful and saves their feelings.

No fine should be exacted until the chance to win the reward or to establish the habit has been given. Let the child succeed without it, if he can. He will feel is justly demanded if he has first tried and failed.



Thrift

TRAINING in thrift begins very early. It is concerned first with eating all the food on one's plate; in eating all the apple except the core, not taking a little and throwing it away; and in eating crusts. A little later the child learns to save big scraps from his cuttings to use later; not to cut a small picture from the middle of a sheet of drawing paper, spoiling it all; to take care of toys and books; to put crayons away; in covering the paste jar to keep the paste from drying up, and in preventing waste in other ways.

The next exercise he gets is in the use of his pennies. The five and ten-cent store and the corner grocery are a great menace to wise spending these days. Parents give pennies liberally and allow frequent spending because they can afford it, little realizing that they are establishing two very bad habits—frequent spending and the buying of cheap articles. Spending pennies must be considered in the light of the habits formed rather than the momentary pleasure they give.

As has been repeatedly said throughout this book, children learn only by doing. If the child is to learn the value of money, he must know what thrift means:

1. Realizing how money is secured—by earning it.
2. What it is for—wise spending.
3. How to keep track of what one has—accounting.
4. Banking one's own money and getting interest for it.
5. Learning arithmetic, writing, responsibility and developing honesty are other values derived from handling money.

EARNING MONEY

Under rewards mention has been made of the first way of earning pennies. As the child can shoulder small responsibilities about the house, he may receive a small regular wage. Such responsibilities include cleaning the bathroom bowl each morning, dusting, setting the table, clearing the table, wiping silver, pans, dishes, carrying in wood or other daily tasks. The pay may be by the day or week, as the parents decide. Whatever it is should be definitely settled between parent and child. Once settled, the parents must be careful in the extreme to keep to their bargain. The child has not learned to keep reliable accounts, and has an inaccurate memory. A failure to "pay up" at the right time will cause the child to lose confidence, and may affect his desire to earn.

Parents should be very careful if occasion arises when he can't pay or when he must borrow, that he gives the child a paper to keep on which is written, if the child can read, the amount borrowed or owed. If he can't read numbers, the child can read marks. A paper on which one mark for each cent owed is put down will help. It is easy to learn to count fives by the usual four marks with one cross mark. It leads to counting by fives later.

Very soon the need for some sort of accounts will arise. After pennies have gone into the securely-locked bank it is impossible to count them. A system of keeping a mark for every penny put in the bank helps to make the savings account concrete. From this crude first account may develop a regular account book with two pages, one for savings and one for earnings. Later, to help in determining whether the spending has been wise, the child can learn to classify his spendings.

One excellent way of keeping accounts and learning to handle money is to use paper money. Let the child have paper pennies and permit him to exchange for paper nickels, dimes and dollars. This will make money concrete without having actually to handle it.

By eight years of age many children have found regular ways of earning money, by carrying papers, running errands for some store on Saturdays or selling vegetables from his garden or eggs from his chicken yard.

There is another way children come by money—by gifts. Such money comes easily and may go easily. A child should consider the wise saving or spending of this money, as well as any other. He should also learn to budget it; teach him what the word means.

Children should have small allowances, part to be spent and a definite part to be saved. As he shows responsibility in handling money the allowance should be increased, to allow him to learn judgment in the selection of clothes, books and toys. It will lead to better care of these things when the cost is known.

SPENDING MONEY



Unless the child has freedom to spend his money to learn his mistakes in paying too much, in buying toys that do not last; in buying "penny whistles," he is not going to learn how to spend. Small sums now may save bigger losses later.

A storekeeper is often of service in helping the child to realize values in explaining the making of change. Real experience in substituting a nickel for five pennies, nickels for a dime, and in getting back change, and so on, is right experience. Often with the paper money at home the mother may prepare the child for the change he may expect at the store, giving him a chance to check up for himself.

A certain little girl had earned some pennies. They burned her pocket until they were spent. The next day she was given a nickel, and she went to the store to buy a much-needed box of crayons which cost ten cents. "Oh, dear, I do need them now. If I hadn't bought that old cracker-jack I could use those pennies, couldn't I, and I didn't like the prize anyway. Won't you give me some, mother?" "No, I haven't any to-day." "Then I suppose I'll have to wait until I earn some more pennies."

Money in the bank means something to spend for coveted playthings, presents for those we love, which are real gifts, because earned; money to express one's sympathy in a real way for starving babies instead of working up an emotion which gets nowhere. It also means that he has something to give toward the repair of any damages his carelessness may have caused, and with which to pay fines. He has something with which to do his bit when the family as a whole sends a gift, goes into a business, or buys a home. Betty, of her own accord, offered her savings to help on payments on the new home. In another family where the father is staking his all on a business success, each child is having his part in the sacrifice to be made. Children should be taken into the family council, undertakings and expenditures talked over, and each member given his chance to share in the sacrifices as well as the rewards.

The child should bank his own money. He can only realize the amount of his savings when he sees it poured out of his bank. He can only understand the honesty of banks in returning money deposited when he is allowed to present the check and receive the cash. Betty for a long time tried to get money from her mother's bank by writing the best she could on the checks on the bank counter, which the banker refused to honor. It was only after she had deposited money of her own and drawn it out that she began to understand.

Later, when the child is old enough to understand interest, he will find that it pays to save money. Betty's mother has often paid her a small amount of interest money when she has borrowed from her, to make her realize what interest is.

A child should be expected always to have some change on hand for an emergency, and should expect to put into a permanent savings account some part of his earnings.

There is no better way to develop principles of arithmetic than in the handling of money. The other desirable qualities developed through this interest are so evident that there is no need to discuss them.



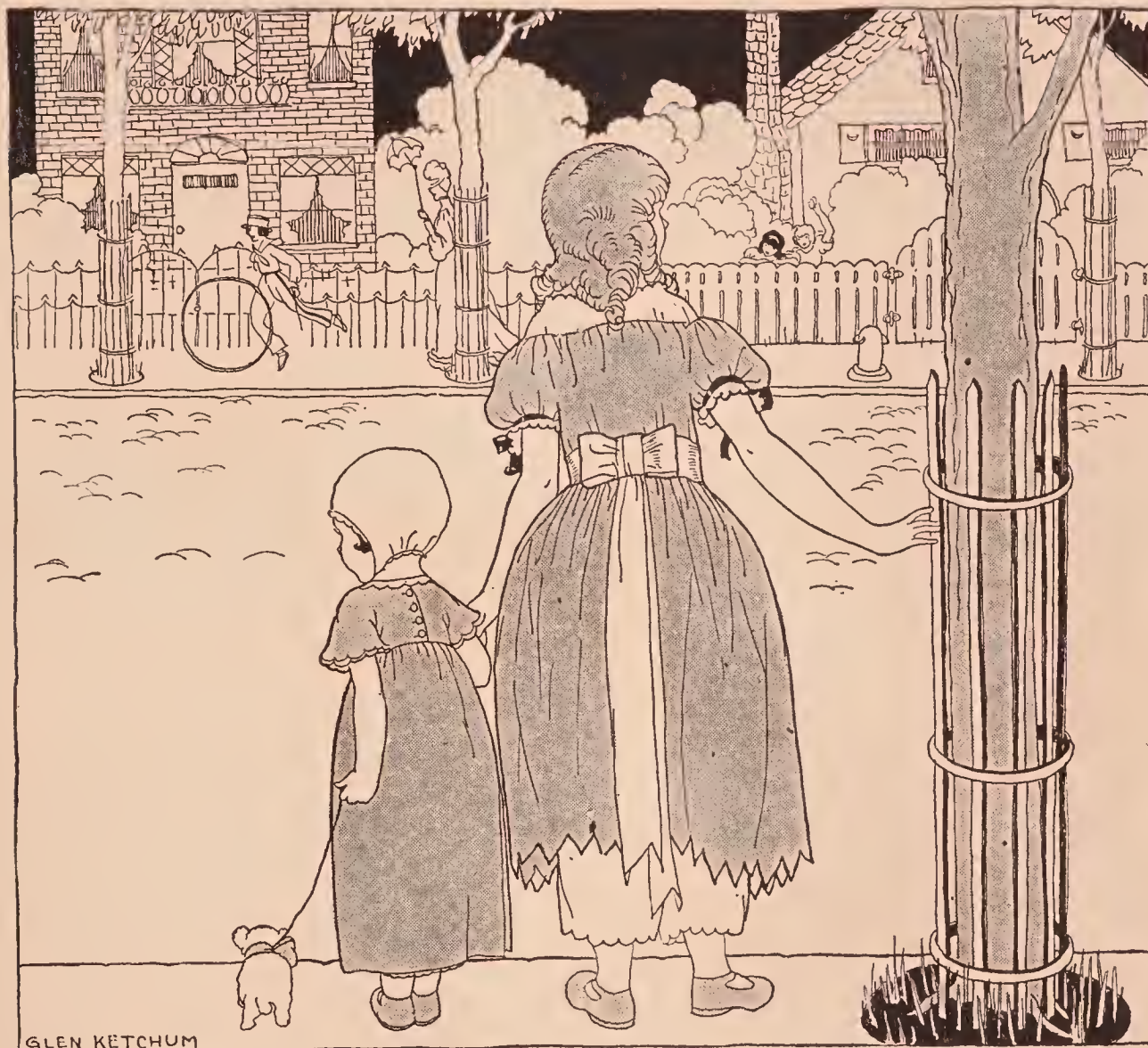
CAUTIONS FOR PARENTS

"Do's"

1. Carry out your promises promptly and scrupulously.
2. Allow some money for free spending.
3. Encourage wise spending and reasonable saving.
4. Give the child an opportunity to earn money of his own.
5. Place on the child responsibility for spending his money wisely.
6. Give advice as to spending, when called upon.
7. Put your business relations with your children on a business basis.

"Don't's"

1. Don't make your child dun you for money you owe him
2. Don't be an "easy mark" in dealing with your children.
3. Don't go back on your promise because a child spends his money unwisely.
4. Don't regard a promise to your child less binding than a promise to a stranger.
5. Don't be so niggardly that your child prefers to work away from home.
6. Don't protect your child from the consequences of his own extravagance.
7. Don't lose your child's confidence by questionable dealings.



GLEN KETCHUM

“Safety First” Habits

STOP on a corner to look for vehicles before crossing over.

Watch for safety before getting off a car and running to the curb.

Never cross behind a standing car without looking in opposite direction.

Keep always to the right on any road.

Be able to tell one's house number, street address and telephone number.

Know father's name and business address.

Let mother or guardian know where you are at all times. You can always use your neighbor's telephone, or ask her to use it for you if you wish to stay to play.

Refuse to take walks or rides with strangers.



Nature Work of All Kinds

ELLEN EDDY SHAW

IF, by any magic means, parents could find a vocabulary so simple, so clean, so uplifting, by the use of which they could make plain to their boys and girls the story of life, the meaning of sex, the inspiration coming from fine living, such a language would be priceless, and no difficulty could stand in the way of acquiring this fine art of speech. During one of the most active mental periods of human life, namely, from the age of three to seven, a child is acquiring all sorts of impressions of the world he is to live in, and laying down in the gray matter of his brain the beginnings of mental avenues of thought and attitude of mind which stay by him all the rest of his life. Hence, it is most essential that during these periods a child should be surrounded by all those things which are to make a rich life-content for him. In other words, a well is being sunk, either deep or shallow, from which eternal springs shall rise all the rest of his life. Shall the well be full of sparkling and fresh water, or shall it be a murky and sluggish one? These are the two choices. It depends upon the parent what sort of environment shall surround the child from the third to the seventh year. Whatsoever is pure, whatsoever is holy, and whatsoever is fine should be made the normal background of early years. If we are to expect purity of thought and deed from the next generation, the foundation must be laid by parents during the period mentioned. No parent can expect this background to be supplied by church, school or society.

The plastic period is the one given by God to the parents during those years when the parents are the greatest thing in the world to children. What, then, shall the nature background be? First, one of understanding of natural laws which shall be gained from observation and experiences with the outdoors. Second, a reverence which shall come from seeing the great miracles God performs daily in the physical world. And thirdly, an understanding of the child's self and his impressions of sex which shall come from a study of plant life and its functions, of lower animals, and through the study of personal hygiene.

Let us take the last point first, that is, a child's understanding of himself and of sex. We start with the psychological fact that suggestion is powerful and that in regard to a child's self and the sex question in general there is bound to be a great deal of unpleasant suggestion thrown about these questions unless great care is taken by the parent to safeguard against it. Such a subject should be burst wide open at the very start, should never have any unpleasant ideas associated with it, and should be as normal and natural and sweet and wholesome as the physical operation of breathing fresh air. Place a suggestion of goodness against a suggestion of evil: a knowledge of purity is a guard against evil. A mind full of wholesome thoughts has no room for impurity. Suppose one starts with certain basic facts to present to a child—not to present them all in a rush, but to see that these facts are covered during that period of from three to seven years. The plant world lends itself easily to this. First, plants are alive, as we are. Second, plants have organs similar to ours, and those organs have functions like or similar to those of ours—for example, breathing, circulation, food making, producing one's kind, or reproduction. Third, plants need care, food, light, heat and water. Poor weak seeds produce poor, weak plants, and poor weak animals produce poor, weak animal children. Fourth, plants may be improved so that the seed from the parent will produce finer plants than the parent plant; so may the animals be improved. Take up cross-fertilization and what it means. Fifth, plants and animals have sex: some are made like boys and men; some are female, like girls and women. Sixth, plants live in families; so do animals. There must be fathers and mothers, in order that there may be children.

To work out these basic facts mentioned above, at a very tender age children should get in touch with plant life, learn to care for and love it by having plants of their own. Little individual pots of bright red tulips, yellow crocuses, blue and white hyacinths, or a bright geranium to care for during the winter will sustain interest. In early spring start in boxes of soil or sawdust or between damp blotting papers seeds of corn, beans, beets, of marigolds, batchelor buttons and squash. Try a few simple experiments of keeping the young plants in the light and in the dark; with water and without water; in the heat and in the cold. It is easy to see

exactly what plants need—just those things which we need for our lives. Watch the geranium as it tends to turn toward the light; swing it around so that each side may have a chance at the sunlight and so grow naturally and normally and well.

There is nothing better for a child than this work with his plants. He learns to handle life, to care for something, to be responsible. Get some raw peanuts and start some of these in little pots of soil. Break open the peanut or bean; see inside of it the little plant—the baby—already formed. All about the baby, those big seed leaves, or the edible part of the bean or peanut, are filled with food which the mother plant has stored up for her babies. Babies, whether in the form of bean seeds, peanuts, eggs, kittens, puppies, or baby children, must begin life before birth surrounded with food prepared by the parent and part of the parent. Then out of a warm and comfortable mother nest the plant, chicken, bird, puppy, kitten or baby emerges into life. A while longer it is fed by the parent and then it takes care of itself. The bean seedling is excellent material for this study, because as it grows larger and larger it still uses the mother food, carrying it up into the light with it, sucking on its bottle of food until it is a great, big, strapping child. Cut open a bulb, and down inside of it you find a little plant, a tiny flower, already formed and ready to start out when the time comes.

Take possibly the raising of chickens, the baby inside the egg, the slow growth, feeding on the food that nature has provided, coming out of its shell at the right time, a struggling creature needing help from its mother; the kitten or puppy formed inside the mother, finally coming out into this world, and living on mother's food until big enough to take care of itself. The country offers great opportunities in this line. The child who is entirely surrounded by city restrictions must look largely to plant life and to summers in the country for nature's own explanation of physical life, its needs, and what sex stands for. A little girl handling gently a cat about to have kittens said to an older person, "I have to be very careful of my cat, because it is pregnant." The older person was amazed and said, "How vulgar in the child." Really, how vulgar in the grown person. There is nothing vulgar in the word *pregnant*. This story is an illustration of the fact that grown people have associated and packed around certain words only one meaning, and that an unpleasant one. Perhaps it is not necessary that one ever use the word *pregnant*; perhaps it would have been better had the child said, "The cat is going to have kittens. Inside the mother are the kittens, waiting until the right time to be born." It is a wonderful time. We have to take care of the mother. It is just so when our baby sister or brother is born. It is just so when the little bean seed swells and swells, and finally the child bursts out of the seed.

The idea of sex in plants and animals should be discussed with the child

when it is very young, and should be spoken of frequently and simply in a matter-of-fact way, right straight along, so that there never comes a break in the time when one can talk naturally and normally with one's child about one of the biggest factors of life. In the minds of many people recently this biggest factor has been made over-prominent and has been surrounded with doubt. When it is discussed with no emphasis, it can never be a very alarming factor in one's mind.

The poplar tree or the willow in spring is sending out its buds. We have cut two willow twigs or whips, one from one tree and one from another. We notice that as the catkins are thrust out one finally becomes covered with a fine yellow dust, while the other has developed little tubes or pistils. The one with the pollen is the male; the one with the pistils is the female. The yellow pollen must fall upon those tubes, and then the pollen, by sending out living filaments which grow and work their way down into the ovary, thus fertilizes the seed. Take a bright-colored nasturtium, and see the parts which have the yellow pollen on them; in the same flower note the pistil standing up in the center. The parts of the plant, the stamens, which have the yellow pollen are male parts, or fathers, and the pistil, waiting for fertilization, the part from which the new child or seed must come, is the female, or mother part. Bring out the point that the seed is useless without being fertilized, that the pollen gives new life to the embryo seed.

If you are out in the country during blossom time in the spring, tie a paper bag over one cluster of apple or cherry blossoms and leave it. Watch the fruit set and grow and see what your apple or cherry, unfertilized, tastes like. It is necessary that bees and birds and the wind carry the pollen from flower to flower so that we may get good seeds. This is called cross-pollination, or cross-fertilization. If you have some lovely pansies and you see the pollen heavy on one flower and notice that the pistil of another is sticky and ready for the pollen, take a clean knife, get some of the pollen dust off one flower and put it on the pistil of another flower. Then tie a little bag over that, and when the seeds come, save them, remembering what color the pansy was from which you took the pollen and the color of the one upon which you put it. See what you get from these seeds. It is fun to try out experiments like this, and it is also good for a child. We need good parents in order to have good children. It is not easy to try experiments of this sort with the animal world. The fish globe with snails in it and finally a little new family of snails coming out is all very interesting, indeed, but the lesson of life can only be taught well from the plant kingdom.

Speak to the children about the reason for the beautiful colors in plants, the lovely shades of color in the male birds; tell them that all this is for attractive purposes, so that this great work of fertilization may go on, and that we may have new birds, new flowers and new children.



With a child of eight, nine or ten years, the idea of plants living in families and animals living in families is a very good one to bring out. For instance, take the maple trees, numbers of them, and yet because of certain likenesses, make it clear that they belong in one family. Take the oaks; look at the leaves, and you will see that some of them have round lobes and belong to the white oak family, while others have sharp pointed lobes and belong to the black oak family. One might divide up the oaks into these two groups, all summer long, with much enjoyment and profit. Consider the narcissus family, in which we have the Chinese lily, paper white, daffodil, jonquil, poeticus. Raise all these members, and see why they are alike. Take such a family as the Solanaceæ, to which the potato, tomato, and tobacco belong. Why are they all in one family? All of nature gathers itself together in groups determined by likenesses and differences—this great big world of families. In the animal kingdom, the family of sparrows will perhaps be as good a one as any to study; or that family to which the robins, blue-birds and thrushes belong. Why are they alike? Or, study the big family of cats—the wild cats and the tame cats.

Again, in the winter study the pine trees, with their leaves all gathered into needles, some with five needles in little bunches, some with three and two. This gives the basis of classification for the family of pines. Think of all the questions that might come out of this work with your children. Send your child to the works of Burroughs and Favre, almost at the very start of his understanding

of the printed page, to look up all sorts of interesting things. Think of the wonderful colored charts and pictures from which he may draw his own conclusions. Think of the collections you would like to have him make from all of these, the lessons of character and precision, exactitude and observation, worked out naturally; for example, orderliness of nature, against disorderliness of nature; flowers, plants growing up in their proper places; weeds—plants growing out of place; the upset bureau drawers—things out of place; toys not put away at night—things out of place. Here are tremendous opportunities for lessons essential to life.

The second great object in presenting the field of nature to a child during his most impressional periods is that of reverence for the great works of God or nature. Early impressions are lasting. Each season of the year some miracle is spread before us. For example, in the fall the coloring of the leaves—nature, less active in her vigorous work of obtaining food in the plant world, starts these great changes which are not entirely understood by man. The world changes, and as if an artist had taken a paint brush, the vivid red of some of the maples and sweet gums, the yellow of the tulip trees and other maples, the russet brown of the oak leaves, are spread before us where green appeared yesterday. At this time of the year if you pull off a leaf from the tree you will notice a corky layer beneath; this is the little door by means of which nature is starting to shut off food from that leaf and to push the leaf off. A miracle? Verily.

Walking in the woods later on in the winter, dig down under the snow or the covering of dry leaves and see the hepatica buds already formed, little plants, which, if taken into the house and placed in a bowl like a partridge berry bowl, will open their buds. All of nature has prepared ahead to do its later work. Scratch aside the mulch you have put over the pansy beds in the garden, and see the buds waiting to come out.

Gather cocoons in the fall, keep them in a cool place and occasionally sprinkle them with water. Then in the days of late April, force out the moth from the cocoon or the butterfly from the chrysalis. Nature's great miracle has happened within that cocoon. In the summer, feed some caterpillars and keep them confined so that the cocoons may be woven before the children's eyes; so they may see the fine covering of hair taken from the woolly bear, or those wonderful *Cecropia* and *Polyphemus* cocoons woven from silk, and often in the case of the *Polyphemus*, pieces of wood pulp woven in with the silk. The hornet's nest is another miracle of nature's work; the beaver's dam and that interesting little insect, the spider, spinning its web across the roadways and in the woods, so that, as you walk along, these silken threads brush against your face and you know a spider has ballooned its way across the path on its tiny silk thread; the making of a bird's nest—all wonderful things that are certainly beyond our power to do.

If you live in certain sections of the south, you may find cunningly hidden in the grass the open door of a trap-door spider's nest, and lying quietly there in the grass you see him put up his little hind legs and quickly clap the door shut. All these are marvels, and they open up to a child a world of mystery and power beyond ours.

The cloud formations, interesting charts which one may get from the Department of Agriculture; the great electric storms in summer, having a radio system all their own. Work out some little star charts, sample sets of which one may buy from the Comstock Publishing Company, of Ithaca, New York. All these marvels can be spread at will before a child's mind and before his eyes. A natural reverence for these great works must come into his soul. Such a book as Favre's, and interesting little insect books by Clarence Weed, are worth reading at bedtime to your children. They make the best bedtime tales, because they are full of mystery and are based on fact; they are not made-up stories.

This second point of reverence is all bound up with the first point of understanding the great outdoor world, and it presents a series of questions to a child. These questions nature always answers, if you know the language. For instance, some of the maples form their buds and fruiting parts, the keys, early in the season, in May or June, while the sugar maple forms its fruit in the fall. What is the reason for this? Why doesn't the sugar maple line up with the others? Because it has other work to do. It is forming a tremendous amount of sweet, clear sap, which, when the tree is tapped, runs off and can be made into maple sugar and maple syrup. The tree is giving its greatest energy to that, while many of the other maples are giving their greatest energy at the same time to the formation of the fruit.

Why has the beaver a very flat tail? It is nature's means of helping him to make his home and his dams to hold water back. Why do we often find toads sitting out under the plants in our garden? Why have they long, whip-like tongues which are coiled up in their mouths? It is that they may be able to gather those injurious insects into their mouths with their little lashing tongues. Why are horsechestnut seeds made rounding? They should roll away from the parent tree so that not all the new little baby trees will spring up about the mother but be scattered here and there. Why is the squirrel always so busy in late summer and fall? So it may gather enough food for the long winter. Why do some of the squirrels build their homes under ground, with a trapdoor at one end of the passage and the nest at the other? For protection against the inroads of enemies. As we cross fields in late summer, sport-stockings, little trousers and dresses are covered with stick-tights and burdocks. Why does nature form these cunning little fish-hook shaped appendages on the fruits? So that these seeds may

take a ride, and later being plucked off and thrown down, may spring up all over the countryside.

Why are the male birds so beautiful in color, and why are the female birds which are to stay at home on the nest dull colored? Why is the walking-stick made to look exactly like a twig, and why can the little tree toad change its color from green to brown and almost dull neutral stone color? This matter of protective coloration is a very interesting study, a marvelous thing, a miracle and a scientific protective fact.

Why, as you walk through the open, unsheltered fields, do you notice all the trees bending in one direction? Of course, this phenomenon represents the action of prevailing winds. This is very noticeable at the seashore. Then there are all the wonderful sea forms to be studied. Have you ever taken up a brittle star and seen it drop off its arms so that it might save itself rather than be caught?—the little sea anemone with its wonderful flower-like top, its mouth nestled far down within its row of tentacles; the sea urchin, which is like the star-fish, only closed up and covered with those prickly spines which protect it against the inroads of higher animal forms?

Study the kittens and puppies at home. Why is the cat's foot shaped just as it is? What means does nature give the puppy to get its food, to protect itself, to express its joy or displeasure? Pets like rabbits, guinea pigs, birds, ducks and kittens offer wonderful opportunities to bring out in a child a protective feeling, a sense of responsibility and an opportunity to study the laws of nature. If one lives in the country, all the little tracks in the snow made by the different little wood animals are well worth studying, careful observation coming in at this point. Putting out food in the winter, planting shrubs with bright berries for the same purpose—all this is well worth doing by the young children.

The little home garden is another opportunity for a child to learn lessons of care in planting and observation of how nature looks out for herself—the expanded root of the beet, the thickened broad stock of the celery, the swelling on the stem of the kohlrabi which forms its edible part, the storage of food in the root of the onion plant. Perhaps the garden is one of the most normal and natural places for a child to learn some lessons of life. He sees plainly there the results of his own work. They are either good or bad. He has to be honest with himself in that spot. You cannot plant carelessly, and then have a beautiful, orderly garden. Nature tells you right away that you have made mistakes.

The third point in presenting to a child the natural laws in our physical world is bound up with the discussion of the second point of reverence, and in opening up this world to him, you cannot but place before a child, as has been stated several times here, some of the ways nature has taken to establish her



laws. All of the animal and plant world is striving constantly for food, protection, shelter or home, and to reproduce its kind. All the beautiful esthetic side of nature is carefully planned, in order that the great laws may be more firmly established. In the study of animal life, the point to attack is always that of care, and then as the child cares for his own pet animal, feeds it, helps to shelter it, he begins to see why nature has equipped his special pet with certain physical assets or limitations. It has

been said that "to raise a plant successfully is an education in itself." That would be equally true, and in the minds of some even more true, in raising an animal successfully, but the lesson of life or the reproductions of life are easier to unfold with plants than with animals.

The whole round world, in a sense, is the child's oyster. Help him to open it; help him to understand it. Parents are constantly planning to heap up a certain amount of riches, or property, or bonds, or stocks to leave to their children. How much more splendid an inheritance it is for children to have in their souls and in their minds and their hearts the right sort of things, so that later a young person may know that his father's gift to him was insight, the power to think clearly and not to deceive himself by false issues; that one's mother's great gift was the ability to appreciate the beautiful, to face facts and to reverence holy things.

Can you think of a more splendid inheritance? Those children who leave the fireside and go out into the outside world to school and to work and to play at the age of from eight to ten years carry with them practically all of the possibilities of life. These come, first from their inheritance; second, from their environment, or what their parents have surrounded them with from the time of birth to the age of seven or eight years.

Take this magic thing, the natural world, twirl it about before the child as you would hang a crystal to catch the sunshine, and let there break up, sinking within his soul, the white light of truth, so that all the beautiful colors of life shall remain in him a spectrum of possibilities from which he may draw his source of future appreciation.

For Aid to Parents: Here follows a simple suggestive course of nature study which it is possible for any parent to carry out, at least in part.



SUGGESTIVE COURSE OF NATURE STUDY FOR HOME WORK
(BY SEASONS)

I. FOR FALL

- a. Seed dispersal; fruits; weeds.
 1. Modes.
 - a. Wind.
 - b. Animals.
 - c. Water.
 - d. Mechanical.
- b. Preparation for winter.
 1. Squirrels.
 2. Horses.
 3. Chickens.
 4. Bears.
 5. Groundhog.
 6. Toad.
 7. Snakes.
- c. Trees.
 1. Coloration.
 2. Dropping of leaves.
 3. Fruits.
- d. Bulb study.
- e. Cuttings.
 1. Soft wood.
 2. Hard wood.
- f. Outdoor garden work; harvesting.

- g. Weather.
- h. Birds.
- i. Insect life (cocoons).
- j. Fall Flowers.

II. FOR WINTER.

- a. Trees.
 - 1. Deciduous.
 - a. Shape or form.
 - b. Buds.
 - c. Bark.
 - 2. Evergreen trees.
(broad and narrow leaves).
- b. Persistent fruits.
- c. Rocks and minerals.
- d. Seeds, experiments in germination and testing.
- e. Preparation for the outdoor garden.
(plans and ordering seed).
- f. Bird study.
 - 1. Winter protection.
 - 2. Feeding.
- g. Indoor planting.
- h. Bulb study; length of time until blossom.
- i. Elementary botany.
- j. Animal study; house pets—cat, bird, dog.
- k. Weather.
- l. Garden apparatus—in manual training shop; make garden reels, stakes, dibbers, flats.
- m. Elementary astronomy; star charts.

III. FOR SPRING.

- a. Soil.
- b. Weather.
- c. Trees, buds, leaves, flowers, early fruits.
- d. Birds; nests.
- e. Flowers (wild); elementary botany.
- f. Garden work.
- g. Insect study.
- h. Animals beneficial to the garden, or harmful: toads, moles, earthworms.
- i. Shrubs (pruning).

SUGGESTIVE QUESTIONS FOR HOME STUDY OF PLANTS, ANIMALS AND TREES.

Plants.

Is your plant in the form of a low-growing, trailing plant, or tall, or the size of a shrub?

Leaf: Study leaf form. Is it a simple or compound leaf? Does it grow opposite or alternate on the stem?

Stem: Is it smooth or rough? Is it woody or soft?

Flower: Color, shape, single, clustered, simple or composite? Pendant or erect? Cultivated or wild? When does it bloom? For older children: parts of the flower and flower families.

Fruit: What is the nature of the fruit? Single or clustered? When is it formed?

Animal Study.

Size and shape of the animal. General coloring: markings. Is it colored for protection? What kind of a coat or covering has it?

Feet: Study the tracks.

Habits: What are its general habits? How does nature protect it for the kind of life it leads? On what does it feed?

To what family does the animal belong? Name as many as you can of its relatives.

Value: Is the animal of any commercial use?

Birds.

Size and shape, compared with sparrow for small size and robin for large.

Bill: What does the bill tell you about the bird? What can you say of its size and shape.

Habits: How does it fly? Does it walk, run or hop? How does it get its food? What are its nesting habits?

Value: Of what value is the bird?

Trees.

Shape and branching: study of bark (best studied in winter).

Conifers (evergreens) or deciduous trees: Deciduous trees drop their leaves in the fall. Why is it well to use the name *conifer* instead of evergreen?

Buds: Are they opposite or alternate? Does this determine the branching? Are the buds smooth, coated, round, pointed, or are they sticky?

Leaves: Alternate or opposite? Color? Veining?

Blossom: Color, shape; when formed?

Fruit: When formed? Description.

SOME FAMILIES OF PLANTS TO USE WITH CHILDREN TO DEVELOP THE
CONCEPT OF FAMILY.

Compositae	Aster
	Calendula
	Dahlia
Cruciferae	Radish
	Cabbage
	Horseradish
Leguminosae	Sweet peas
	Beans
	Lupine
Solanaceae	Tomato
	Tobacco
	Potato
Ranunculaceae	Columbine
	Delphinium
	Buttercup

The following books are helpful in nature study work:

Blanchan: Bird Neighbors.

Lefax Leaflets: Lessons on Plants, Flowers, Animals. Plates for coloring; published by the Comstock Publishing Company, Ithaca, N. Y.

Matthews: Field Book of American Wild Flowers. Familiar Life in Field and Forest. Field Book of American Trees and Shrubs.

Reed: Guide to Wild Flowers. Bird Guide, Land Birds, Water Birds.

Weed and Emerson: Our Trees, How to Know Them.

OUTLINE DRAWINGS

Flower Outlines. 30 plates in set. 50c per set. Obtainable from Miss M. E. Eaton, New York Botanical Garden, Bronx Park, New York City.

Moth and Butterfly Plates. 10 plates in set. 20c per set. Comstock Publishing Company, Ithaca, New York.

Zoo Animal Outlines. 50c per set. Comstock Publishing Company.

Outline Drawings of Common Animals. 30c per set. Comstock Publishing Company.

Outline Drawings of Common Birds. 55 plates in set. 50c per set. Comstock Publishing Company.



Social Needs of the Child from Four to Seven

DESIRABLE qualities grow only through exercise; self-dependence is developed through having to depend upon one's self. And so the ability to live one's own life, to secure one's own ends in the society of others, grows only through living among people and acquiring habits of adjustment to them. A child may have the best of teaching about fairness, justice, courtesy, not fighting or not being selfish, and yet be utterly lacking in the exercise of these qualities when thrown among people. His misadjustments cause supersensitiveness and hurt through misunderstandings, a tendency to be "walked over," to give up his standards to win approval, a real weakness when among others; or it may develop a dominating sense of power, a selfish overbearing manner, and other undesirable traits when later thrown among other children. It may mean a withdrawal within self and an unsatisfied longing for things only social life can get. Social habits of some kind, that is, methods of adaptation to the people around the child, are bound to grow—have been growing from babyhood. The sooner opportunity comes to give right social adjustments a chance, the less need will there be for waste and suffering later.

Again, children grow quite familiar with the mother's words at home, and only half listen to her. But let the teacher talk about the necessity for clean nails, clean faces, or a child call attention to another child's dirty hands, and the words, heard as though entirely new, receive attention. I remember the amazement and later the amusement I felt when Barbara told me with serious face that "every little child must brush his teeth before going to bed," and, getting her brush, went to work as though she had never heard of the necessity before. Words and acts in a situation away from home receive attention otherwise not given. It may be for the same reason that the housekeeper speaks of "how good things taste away from home," when her husband, perhaps, is wishing for the cooking he enjoys at home. A good school upholds the mother's hands.

There is not only the new light thrown on old home activities, but in a group of children coming from many different homes there is added much that is new, and much that enlarges the experience of each child in the group. The child finds that things in his home—laws, regulations, pleasures—are not peculiarly his own, but a part of the life of all boys and girls. He finds a place not only for himself among others, but for his home in the community.

Until now the child has known law only as laid down by his parents, accepted by him with reasonableness or resentment, as the case may be. Now he finds that all children must obey law, and in a good school where many of the laws are made by the children as occasion arises, he sees the necessity for it and learns to give ready obedience. The home alone cannot teach this.

He soon finds out that he must control his emotions as well as his actions. Where parents, making allowances for the child, adjust or ignore his ill-humors, these new companions punish or reward swiftly. He learns to see his behavior in the light of its effect upon others.

There is another way in which the kindergarten (for at this age the only proper school is the kindergarten) broadens the child. Watching other children presents new ideas of things to do and new standards of judging his success.

When the problem arises of making a basket to hold his Easter eggs, Henry sets to work immediately to reproduce one he has done at home or to devise one for the first time. He may finish his, and when he shows it be glad or ashamed of his results, as his work is commented on by the other children. His own idea of making a basket next time is changed. Or, Henry may see his neighbor making a different kind, and to his mind a better one; so he abandons his former plan and tries the new one. When the lesson is done each child has received from it not only the development of his own idea, but a head full of other possibilities of making baskets, and has formed some ability to judge work of others as good or bad. He goes home with a much broader idea, which, if he has materials to use at home, may find many forms of expression in play time.

Nothing like the presence of other children fires the determination to succeed or urges on to greater achievement. Every child should have this means of finding his true worth among others.

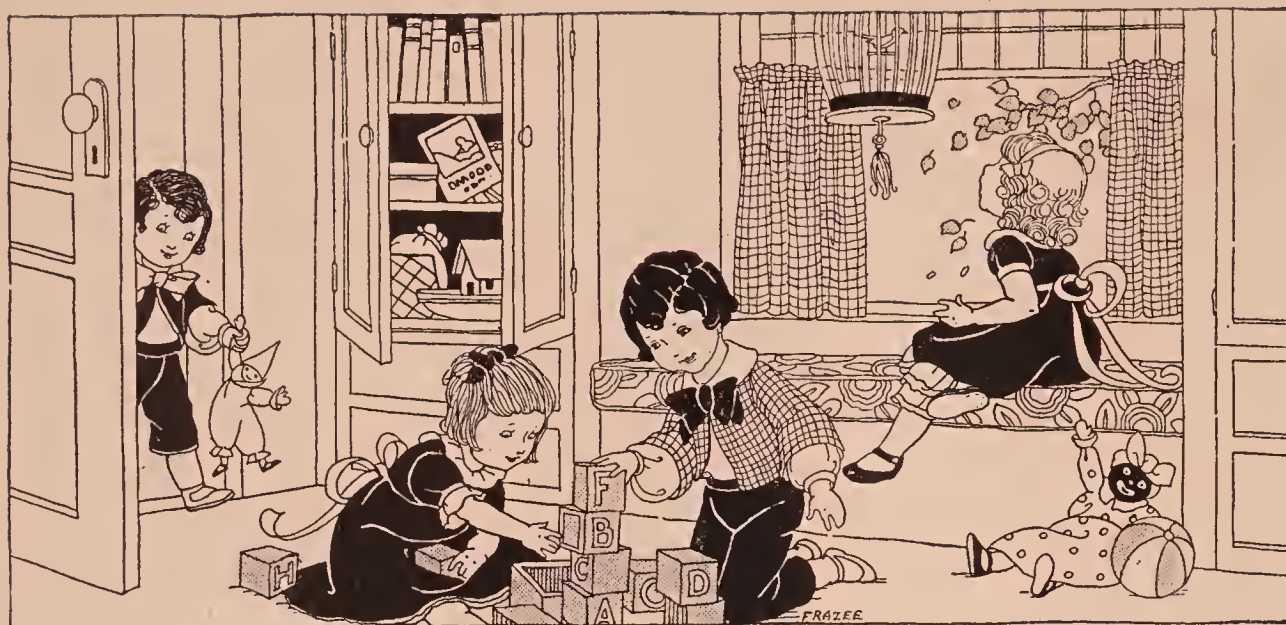
In another place there has been reference to the same situations in the section "How Children Teach Themselves," wherein the value of representative and dramatic plays is shown. It is altogether necessary that other children enter into the plays. Many activities of this sort which could be of great value are lost to the only child out of school as well as to many children in school, who have the companions and the desires, but are unfortunate in attending the old-type of school.

There is little need to speak of the superiority of the teacher over most mothers in this connection. It is taken for granted that she is well-trained for her work and has at hand the ideas and the materials needed to help on the children's work. She is prepared to give the background of experience spoken of elsewhere as fundamental to the grade studies. She is prepared to see that whatever habits should have been formed by now are formed, and that he gets here whatever experiences the child should have before taking up formal school work. These, even with the best intentioned mothers, often are haphazardly provided, for the homemaker has other demands on her time and energy—needs of older children, of husband, and frequently the interruption caused by family illness.

Any healthy child is better off in a good kindergarten than at home, no matter how good a mother may be or however able she is to teach him. In cases where there is no school, the conscientious mother will try to make up for this lack by encouraging many playmates in the home. She will try to see that her child gets this all-important social development at home. And in the other lesson times which he has alone the mother will find her reward for all the inconveniences she suffers from the presence of so many children in her home, in the pride and effort her little one makes because of the effect he hopes to produce upon his playfellows.

We do not realize what a powerful force this is in the normal child. We shall do well to use it for his development, taking special care that we help him to keep some of his sense of proportion. An example will perhaps illustrate: Betty found that she might be a "somebody" by reading stories. This joy in excelling pushed her along so far that her playmates recognized her as the best reader among them. Betty told her mother one night what had been said. "Yes, it is very nice that you can give so much pleasure, but you mustn't talk about how well you can read to others. Every one may do something well. Alice makes people happy because she is always happy and sunny. Philip can do better than any one else on the trapeze," said her mother; "and John is the very best planner of us all," chimed in Betty.

There are only a few years given to a mother to enjoy her child at home. Her child's true development and the mother's deep enjoyment of these years should come first. There is no happier way of enjoying one's child than by surrounding her with little playmates and seeing the wonders of the child's nature grow as it should. Children to play with lessens the demands upon the mother, leaving her more free to do her work and to enjoy as she listens to and watches the play.



Home Amusements

THE parents' attitude toward home play will in a large measure determine its value for the children. If they regard it as a means to the child's development, they will take pains to see that it is of the kind to develop resourcefulness and the habits of orderliness and consideration for the rights of others. They must be willing to let children form and carry out their own play projects, and refrain from overwhelming them with suggestions. One of the most important lessons for children to learn, however, is coöperation with others, on the basis of mutual rights. They must not, therefore, be allowed to usurp authority. Parents often fail to respect children's rights, but children as often fail to recognize that parents have rights also. The right to suitable play material and a place in which to use it is a right that should be conceded to children; but they should be taught that sometimes the parents' rights may prevent the children's exercise of their own.

It is in this spirit and to these ends that parents should direct their children's play. The play with materials forms but one of several agencies that contribute to their unfolding. Of the games that children enjoy so much in kindergarten, only the sense games, hiding games and guessing games can be used in the home, since the essence of the others lies in the companionship of other children. In the absence of such companionship, the parents must contribute more of their own. By participating in their children's unfolding, the parents will themselves be the gainers, since the enriching of their children's lives will result in the enriching of their own.

INDOOR, OUTDOOR AND PARTY GAMES



Tower Ball. Blocks lie near together on the floor. The child tries to roll a ball to hit a block. Each time he hits one he puts it on a pile in the center until a tower is made. Then he aims his ball to knock over the tower. Where more than one child plays, they take turns.

Bean Bag Race. A circle or limits must be set. Two children play the game. They stand back to back with a bean bag balanced on each hand. At a signal they start to walk rapidly around the course back to the starting point.

The first arrival wins.

Dodge Ball. This is played by several children, or child and parent. One stands while another tries to hit his feet with a large ball—a football is best. When the child is hit he is out of the game.

Hide the Thimble. Here is an old game that every one knows. A ball, large bead, wooden block or other object may be used. As soon as seen, the finder retires to a chair, without showing or telling until all have found it. Be sure the object hidden is not entirely covered up.

Tag Games. Children stand in a circle, holding out the right hand. One child skips to music around the center and hits a child's hand; the person hit chases him, both skipping until the first child reaches the second child's place and is safe.

Fox and Geese. The children standing in twos, one behind the other, form a circle. One child is the fox; another, the goose. The fox chases the goose, who may seek safety by dodging in front of any two. There must never be more than two children in a group, so the one on the outside of the group which the goose has chosen must be goose and run. When the fox catches the goose, he becomes goose and the other becomes fox, and the game goes on.

Bird Catcher. The children sit or stand in a circle, with a "catcher" in the middle. Each child is given the name of some bird. The leader tells a story orally, or reads it, which occasionally brings in the name of a bird. At the mention of a bird the player assigned its name quickly raises his hands and brings them down again. When the owl is mentioned (no one is given this name) all place hands behind the back and hold them there until another bird is mentioned. The catcher tries to seize a hand whenever it is moved. A player whose hand is caught or who does the wrong thing must change places with the catcher.

The Minister's Cat. This game is very similar to that of "I love my love." Each of the players must describe the minister's cat, going right through the

alphabet to do so. "The minister's cat is an angry cat," says one; "an anxious cat," says another; and so on until everyone has used an adjective beginning with "A." Then they take the "B's." "The minister's cat is a big cat," and so on. The leader of the game must see that no one hesitates for a word. If anyone should take longer than half a minute he must pay a forfeit.

Blind Man's Buff. In the olden times this game was known by the name of "Hoodman Blind," as in those days the child that was chosen to be "blind man" had a hood placed over his head, which was fastened at the back of the neck. In the present day the game is called "Blind Man's Buff," and very popular it is among young folk.

Before beginning to play, the middle of the room should be cleared, the chairs placed against the wall, and all toys and footstools put out of the way. The child selected to be "Blind Man," or "Buff," is blindfolded. He is then asked the question, "How many horses has your father got?" The answer is "Three." And to the question, "What color are they?" he replies, "Black, white, and gray." All the players then cry, "Turn round three times and catch whom you may." "Buff" accordingly spins round, and then the fun commences. He tries to catch the players, while they in their turn do their utmost to escape "Buff," all the time making little sounds to attract him. This goes on until one of the players is caught, when "Buff," without having the bandage removed from his eyes, has to guess the name of the person he has secured. If the guess is correct, the player who has been caught takes the part of "Buff," and the former "Buff" joins the ranks of the players.

Spin the Platter. An embroidery hoop or pan also may be used. The players sit in a circle. As one in the center spins the platter he calls a name. The child whose name is called reaches to get the platter before it stops spinning, if the child is young, or before the spinner counts ten, if older. If the child catches the platter on time he becomes "spinner." If not, he has to pay a forfeit.

Simon Says. Seat yourselves in a circle and choose one of the company to be the leader, or Simon. His duty is to order all sorts of different things to be done, the funnier the better, which must be obeyed only when the order begins with "Simon says." As, for instance, "Simon says, 'Thumbs up!'" which, of course, all obey; then perhaps comes, "Thumbs down!" which should not be obeyed, because the order did not commence with "Simon says."

Each time this rule is forgotten a forfeit must be paid. "Hands over eyes," "Stamp the right foot," "Pull the left ear," etc., are the kind of orders to be given.

The Farmyard. This game, if carried out properly, will cause great amusement. One of the party announces that he will whisper to each person the name

of some animal, which, at a given signal, must be imitated as loudly as possible. Instead, however, of giving the name of an animal to each, he whispers to all the company, with the exception of one, to keep perfectly silent. To this one he whispers that the animal he is to imitate is the donkey.

After a short time, so that all may be in readiness, the signal is given. Instead of all the party making the sounds of various animals, nothing is heard but a loud bray from the one unfortunate member of the company.

A Peanut Gathering. As the title of this game suggests, the object is to gather peanuts which have been hidden in every available nook and corner—in crevices of sofas and chairs, under bric-a-brac, on mantels, behinds doors, etc. Each hunter is provided with a bag, which is made with a piece of tape across the middle of the top, on which his name is written. As the peanuts are found they are placed in the bags. When it is thought that the hunting has continued long enough, the hunters are recalled to the room from which they started, and the contents of the bags are counted by a committee appointed for that purpose, and a prize is awarded to the hunter having the largest number of peanuts.

The Game of Shadows. For this game a white sheet is required to be hung up at the end of the room. Then the "shadow-makers" take their places on low stools behind the sheet; there must be only one lamp in the room, which should be placed about six or seven feet behind the "shadow-makers." Then the "shadow-makers" drape themselves with shawls, or anything handy, and take their places so that their shadows are thrown upon the sheet. They must of course try to disguise themselves, so that the "shadow-seekers" may not be able to guess their identity.

By loosening the hair and letting it fall over the face, a girl may appear like a man with a beard; bending the finger over the nose gives one a very queer-looking hooked nose in the shadow, and entirely alters the appearance of the face. Covering up in a sheet and then extending the arms gives one the appearance of a large bat. As soon as a "shadow-maker's" identity has been guessed, he must take his place as a "shadow-seeker," and the one who guessed him becomes a "shadow-maker." The penalty of a glance behind on the part of the "shadow-seeker" is to pay a forfeit.

Cat and Mouse. In this game the players join hands to form a circle, and stand about an arm's length apart. One player, the cat, stands outside of the circle, while the mouse, the one to be caught, stands inside. Those who form the circle may raise their arms to allow cat or mouse to pass in and out of the circle, or they may hinder them by lowering their arms. When the mouse is caught other players are chosen.

Drop the Handkerchief. This is always a favorite with the children, and it

is a good game for a large party. All the players save one form in a circle, the one taking his place outside with a knotted handkerchief in his hand. As he runs about the circle he sings:

Itisket, Itasket, a green and yellow basket.

I sent a letter to my love and on the way I dropped it, I dropped it,

A little boy picked it up and put it in his pocket.

Quietly he drops the handkerchief and runs on, trying to get around the circle and tag the player behind whom he dropped it before it has been picked up. If the player discovers it, however, he picks it up and runs with it, trying to tag the one who dropped it before he reaches the vacant place.

London Bridge. Two children join their raised hands to form a "bridge" under which the others must pass in line, the two singing:

London bridge is falling down, falling down, falling down,

London bridge is falling down, my fair lady.

With the last word the "bridge" is dropped over one player, who is led aside to the tune of—

Off to prison you must go, you must go, you must go,

Off to prison you must go, my fair lady.

The prisoner is then asked to choose between two objects, one of which has been selected by each of the two "bridge-tenders," and takes her stand behind the one whose object she has chosen. The game goes on until all have been imprisoned, the side which has secured the most players winning the game.

TRICKS



The Dancing Highlanders. Get an old glove and cut the first two fingers down to the second joint; slip the glove on the hand; on the two bare fingers put a pair of doll's socks, the one for the first finger being padded in the toe so as to make the finger as long as the second finger. The tips cut from the gloves should be used as shoes.

You must have previously cut out of cardboard the upper part of a Highlander's figure, painted the face, and dressed it in a kilt. This must be fastened to the glove, either with glue or with stitching, in such a manner that the fingers appear like the Highlander's legs. The figure can then be made to dance jigs and cut capers in a very funny manner.

The Cork Dancer. Cut out from cork the head and bust of a figure; run four stout bristles into this, so that it will stand upright. Paint the face, put on a

cap and dress of tissue paper, then stand it upon the sounding board of a piano and play a lively tune. The vibration will cause the figure to dance very quaintly.

Animated Serpent. Take a piece of firm cardboard, but not too thick, and draw upon it the form of a coiled-up serpent. Carefully cut out the serpent, going round and round until you reach the tip of its tail. Paint it green and gold in stripes, fasten a thread through the tail, and suspend it from the mantel-piece, or wherever there is a current of air, and it will twist and writhe as though it were alive.

Skipjack. Skipjack is made from the wishbone of a fowl. Clean it well, and fix two pieces of strong elastic or catgut to the two arms. These must be well twisted before being made fast. Then insert a piece of stick in the center of the twisted strings, pull the long end of the stick backwards, fasten it to the pointed arch of the wishbone with a piece of cobbler's wax, place the toy on the ground, stick downward, and very soon the wax will give and "Jack" will begin to skip.

The Height of a Hat. Very few people have any idea of the real height of a gentleman's high hat, as you will easily discover if you show one to the company. After they have viewed the hat, put it out of the room, and ask those present to mark what they suppose to be the height of it on the wall. When this has been done, bring in the hat again, and you will find that nearly every one is absurdly wrong in his estimate.

To Suspend a Needle in the Air. Place a magnet on a stand, in order to raise it a little above the level of the table. Then bring a small sewing-needle containing some thread close to the magnet, and, to prevent the needle attaching itself thereto, keep hold on the end of the thread. The needle is endeavoring to fly to the magnet and being prevented by the thread, will remain suspended in mid-air.

The Dancing Egg. Get a hard-boiled egg, and place it on the reverse side of a smooth, polished plate or bread-platter. If you now turn the plate round while holding it in a horizontal position, the egg, which is in the middle of it, will turn round also, and as the pace is quickened, the egg will move more and more quickly, until it stands up on one end and spins round like a top. In order to be quite sure that the experiment will succeed, you should keep the egg upright, while it is being boiled, so that the inside may be hardened in the proper position.

The Magic Thread. Soak a piece of thread in a solution of salt or alum (your audience must not know you have done this). When it is dry, borrow a very light ring, and fix it to the thread. Apply the thread to the flame of a candle; it will burn to ashes, but will still support the ring.

The Swimming Needles. There are several ways of making a needle float on the surface of the water. The simplest way is to place a piece of tissue paper on the water and lay the needle on it; the paper soon becomes soaked with water, and

sinks to the bottom, while the needle is left floating on the top. Another method is to hang the needle in two slings made of threads, which must be carefully drawn away as soon as the needle floats.

You can also make a needle float by simply holding it in your fingers and laying it on the water. This, however, requires a very steady hand.

If you magnetize a sewing-needle by rubbing it on a fairly-strong magnet and float it on the water, it will make an extremely sensitive compass, and if you place two needles on the water at the same time, you will see them slowly approach each other until they float side by side; that is, if they do not strike together so heavily as to cause them to sink.

The Obstinate Cork. Take a small cork, and ask some one to blow it into a fairly large-sized ordinary bottle that has a neck. This seems to be quite an easy matter. The one who tries it will probably blow as hard as possible upon the little cork; but, instead of going into the bottle as expected, it will simply fall down. The harder one puffs or blows, the more obstinate the cork will appear to be; and even if the effect of blowing gently be tried, the cork will not go into the bottle, much to the amusement of those who are watching. The reason why the cork will not go in is this: The bottle being already full of air, when the cork is blown upon more air will be forced into the bottle, and consequently the air inside will be greatly compressed, and will simply force the cork back.

The following is a simple way of overcoming the difficulty: instead of trying to force the cork through the compressed air in the bottle, just the contrary should be tried, that is, some of the air should be sucked out of the bottle; this being done, the bottle will become partly emptied, and when the outside air rushes in to fill up the empty space, it will carry the cork with it to the bottom of the bottle.

How to Light a Candle Without Touching It. Having allowed a candle to burn till it has a long snuff, blow it out suddenly. A wreath of smoke will ascend into the air. Now if a lighted match is put to the smoke at a distance of three or four inches from the wick, the fire will run down the cloud, and relight the candle.

The Vanishing Dime. Stick a small piece of white wax on the nail of the middle finger of your right hand, taking care that no one sees you do it. Then place a dime in the palm of your hand, and tell your audience that you can make it vanish at the word of command. You then close your hand so the dime sticks to the waxed nail. Blow on your hand and make magic passes, and cry "Dime be-gone!" Open your hand so quickly that no one will see the dime stuck to the back of your nail, and show your empty hand. To make the dime reappear, you merely close your hand again, and rub the dime into your palm.

The Force of a Water-Drop. Get a match, make a notch in the middle of it, bend it so as to form an acute angle, and place it over the mouth of a bottle. Now

place a small coin on the match, and ask anyone to get the coin into the bottle without touching either the bottle or the match.

This is very easy to do. Dip your finger into a glass of water, hold it over the place where the match is notched, and let one or two drops fall on this point. The force of the water will cause the sides of the angle to move apart, and the opening thus becomes large enough to let the coin fall into the bottle.

The Dancing Pea. For this trick, take a piece of the stem of a clay tobacco pipe, two or three inches long, taking care that one end is quite even; with a knife or file, work the hole at the even end larger, so as to form a little cup. Choose the roundest pea you can find, run two small pins crosswise through it, put the point of one in the cup of the pipe and blow softly through the other end of the pipe, throwing back your head while you blow so that you can hold the pipe in an upright position over your mouth. The pea will rise, fall, and dance in its cup, according to the degree of force you use in blowing, but you must take care not to blow too hard, or you may blow it away altogether.

The Coin Trick. Take a coin in each hand, and stretch out your arms as far apart as possible. Then tell your audience that you will make both coins pass into one hand without bringing your hands together. This is easily done by placing one coin upon the table and then turning your body round until the hand with the other coin comes to where it lies. You can then easily pick the coin up, and both will be in one hand, while your arms are still widely extended.

CONUNDRUMS



Which travels faster, heat or cold? Heat, because you can catch cold.

What three letters turn a girl into a woman? A—g—e.

What belongs to yourself, and is used by your friends more than by yourself? Your name.

What is the difference between a milkmaid and a swallow? The milkmaid skims the milk, the swallow skims the water.

When is a doctor most annoyed? When he is out of patients [patience].

What is worse than raining cats and dogs? Hailing taxies.

What is that which every living person has seen, but will never see again? Yesterday.

Why may a beggar wear a very short coat? Because it will be long enough before he gets another.

Why are a young girl's cheeks like a team of horses? One on each side of a wagon [wagging] tongue.

What is the brightest idea in the world? Your eye, dear.

What animal drops from the clouds? The rain, dear [reindeer].

What is that which by losing an eye has nothing left but a nose? Noise.

What is that which is full of holes and yet holds water? A sponge.

What is the oldest table in the world? The multiplication table.

Why was Eve not afraid of the measles? Because she'd Adam [had 'em].

What was the difference between Joan of Arc and Noah's Ark? One was Maid of Orleans, the other was made of wood.

Why didn't they play cards on the Ark? They had only one deck and Noah sat on it.

What kind of canned fruit did they have on the Ark? Preserved pears [pairs].

How many soft-boiled eggs could the giant Goliath eat on an empty stomach? One, after which his stomach was not empty.

Why is a baker a most unwise person? Because he is continually selling that which he kneads himself.

Why is A like a honeysuckle? Because a B follows it.

Why is modesty the strongest characteristic of a watch? Because it always keeps its hands before its face, and runs down its own works.

Who are the two largest ladies in the United States? Miss Ouri and Mrs. Sippi [Missouri and Mississippi].

What word is it that is round at both ends and high in the middle? Ohio.

What is the keynote of good manners? B natural.

When did Moses sleep five in a bed? When he slept with his forefathers.

Why is it more dangerous to go out in the spring than any other time of the year? Because in the spring the grass has blades, the flowers have pistils, the leaves shoot, and the bulrushes out.

What is the difference between a hill and a pill? One is hard to get up, the other is hard to get down.

A man and a goose once went up in a balloon together, the balloon burst and they landed on a church steeple. How did the man get down? He plucked the goose.

Why does an Italian soldier wear brass buttons on his coat, and a French soldier steel ones? To keep his coat buttoned.

What is the difference between an old penny and a new dime. Nine cents.

Which is the best way to make a coat last? To make the trousers and vest first.

Why does a cat look first on one side and then another when she enters a room? Because she can't look on both sides at the same time.

Why is B like a hot fire? Because it makes oil Boil.

When is a tall man a little short? When he hasn't quite enough cash.

Drawing

IN the home as well as in the school, the child should be given the same advantage and encouragement in familiarizing himself with the rudiments of drawing as he receives in his constructive play or elementary studies.

Drawing does not merely furnish an outlet for individual expression; it teaches muscular control and coördination between the eyes and hand, and encourages observation and lays the groundwork for art application and appreciation. We cannot all be artists or art critics, but as there is hardly a phase of modern living or business activity that is not affected or influenced by art, the ability to apply and appreciate it in its various forms is becoming more and more a necessary part of our training. There is no one who would not be benefited in his daily life by the application of the principles that are applied to the making of a picture.

The artist who can paint a truly good picture must possess the ability to see things broadly or simply; he must not be misguided by false exteriors or blinded by unnecessary detail. His perspective must be true and his sense of values must be sound.

Art, as well as being a universal language, is a most elemental means of expression. Almost before we realize it, the baby's meaningless scribble begins to take form, and it is a wise mother who supplies him with the necessary materials and an opportunity to work off this primeval craving for expression.

The following illustrations with instructions on mass drawing by Bess Eleanor Foster will do much to start the child working in the right direction.

CHESTER H. LAWRENCE,

Art Editor,
The Foundation Library.

INSTRUCTION IN MASS DRAWING

BESS ELEANOR FOSTER

Crayon is much easier for young children to use than is pencil or water color. Begin in a simple way to learn to draw the figure. See the following pages.

Give the figures a ground or floor to stand on. First, have children draw figures alone. If the drawing tells a story, that is all that should be expected from little children. After they have drawn the single figures, either of a child or an animal, encourage representation of groups of figures and later backgrounds. Talk of near-by trees and ones far away. Trees that are back and far away should be made smaller. Attention should be directed to the fact that the sky and the ground appear to meet. The child's tendency is to make a little patch of blue sky across the top of the paper and leave a space between the sky and the ground.

HOW TO USE CRAYONS

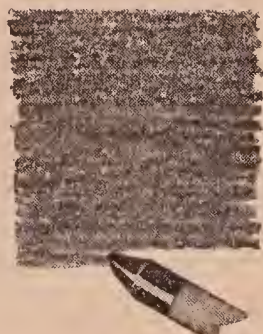


Fig. 1 · A Solid Tone is made by carrying the crayon back and forth over the paper without lifting it.

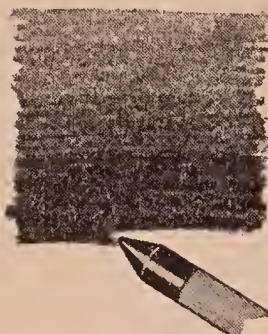


Fig. 2 · A Gradation from light to dark is made by starting with very little pressure upon the crayon and gradually increasing the pressure with each stroke.



Fig. 3 · A Gradation from dark to light is made by gradually decreasing the pressure upon the crayon with each stroke.



Foliage



Grasses

Fig. 4 · Up and down strokes are used for tree trunks, fences, the sides of buildings and tall objects generally. Horizontal strokes suggest the smooth surface of water and other similar smooth surfaces. Foliage and grasses are rendered with strokes as shown.

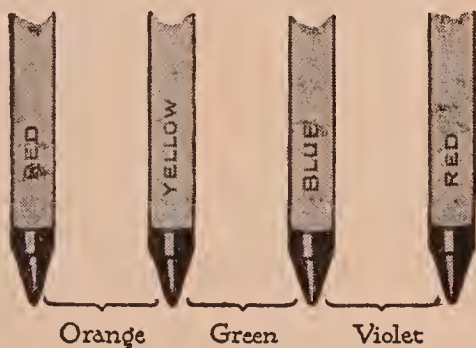


Fig. 5 · Colors may be mixed by applying one over another. Red over yellow will make orange, blue over yellow will make green, blue over red will make violet.

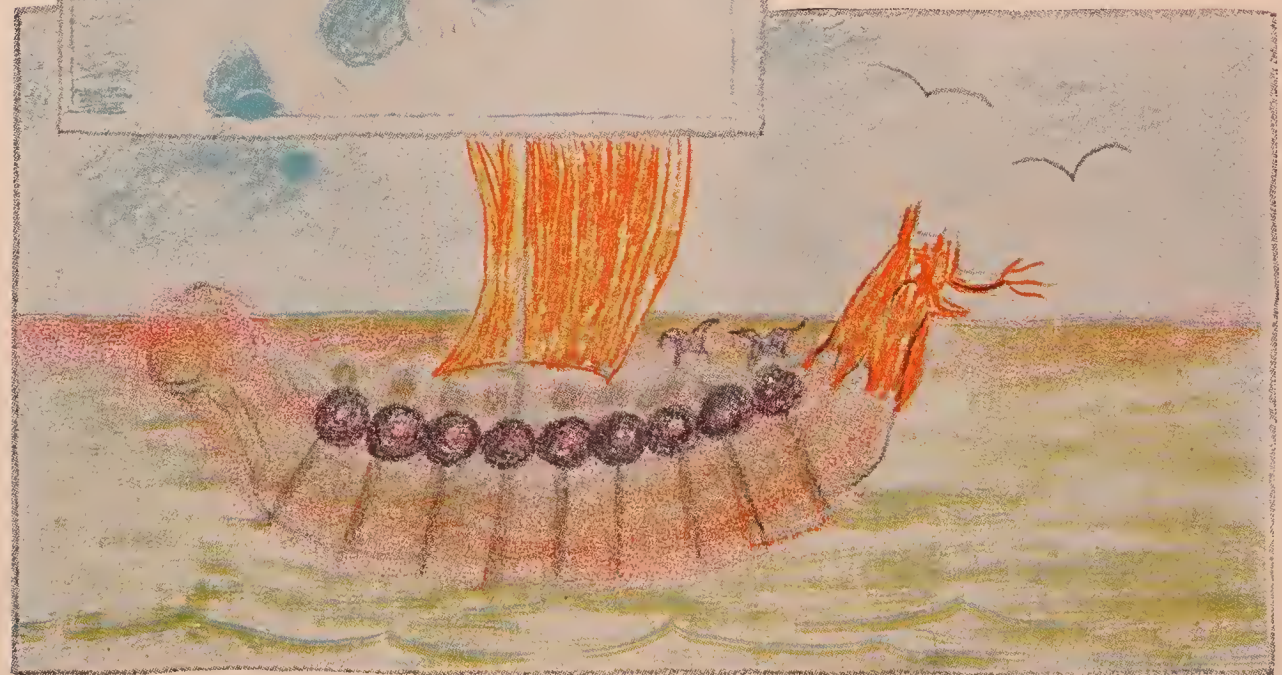
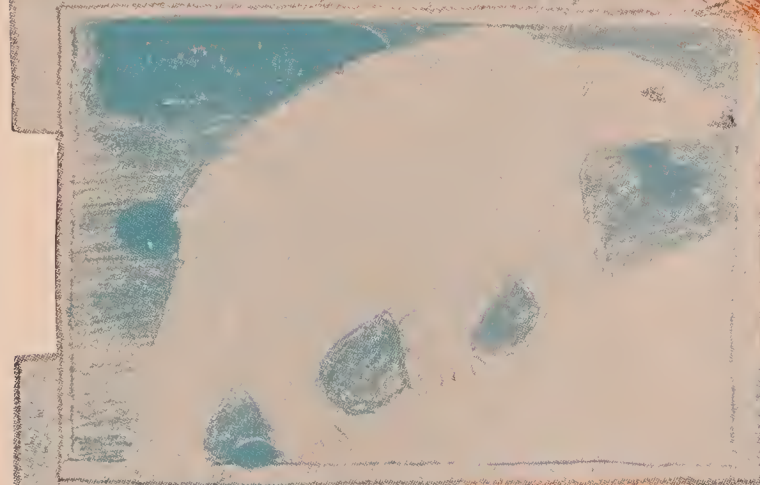


Fig. 6 · To make fine lines or for indicating detail, the crayon should be sharpened to a point with a pen-knife.



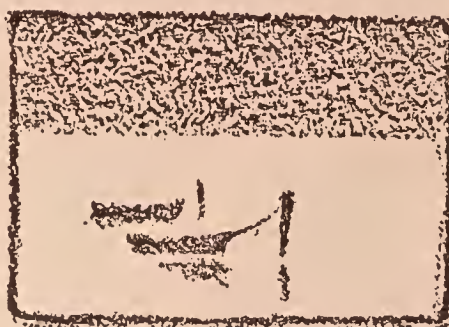
Hiawatha

The Polar Bear

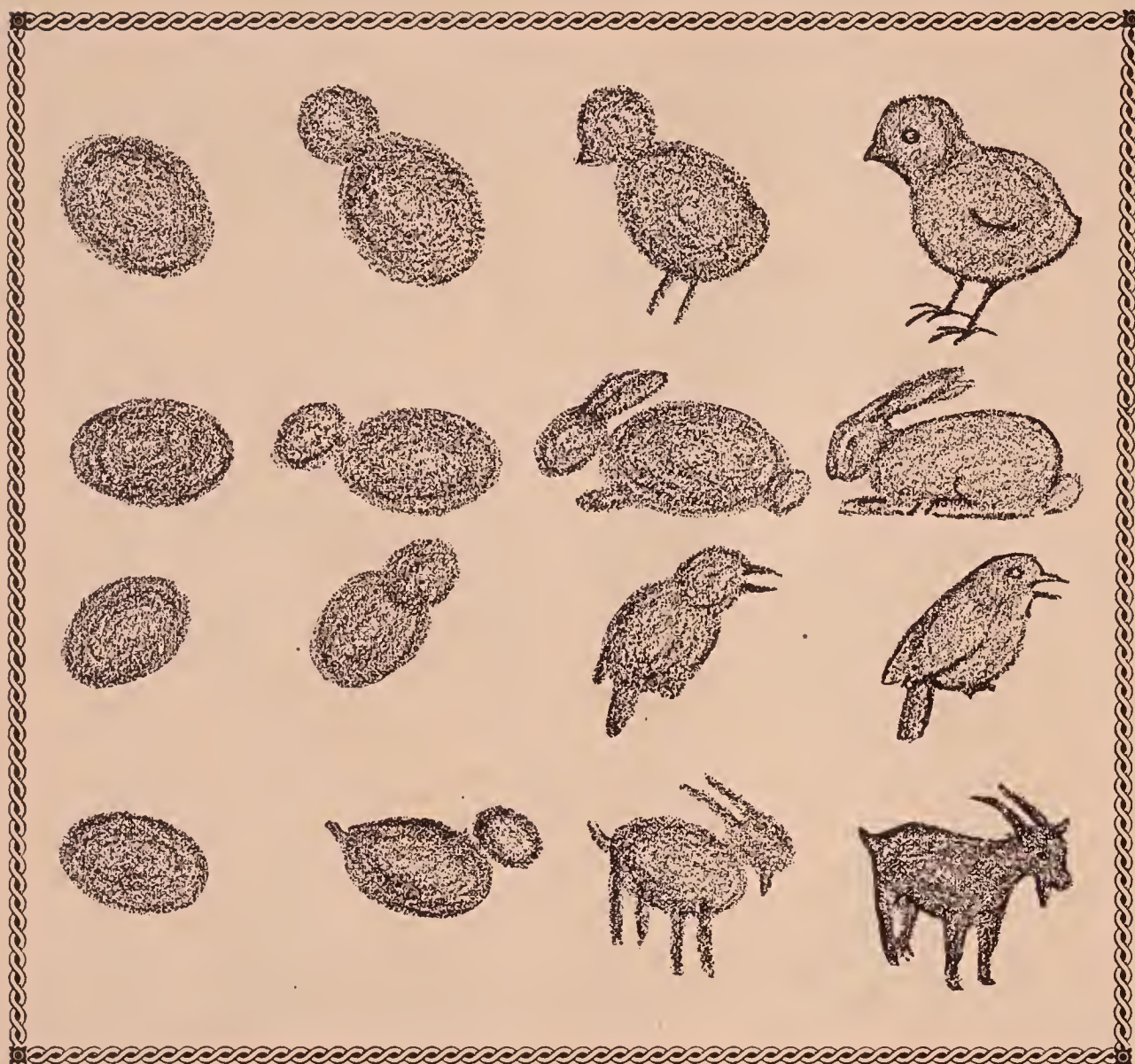


The Vikings

These are actual reproductions of crayon drawings made by small children

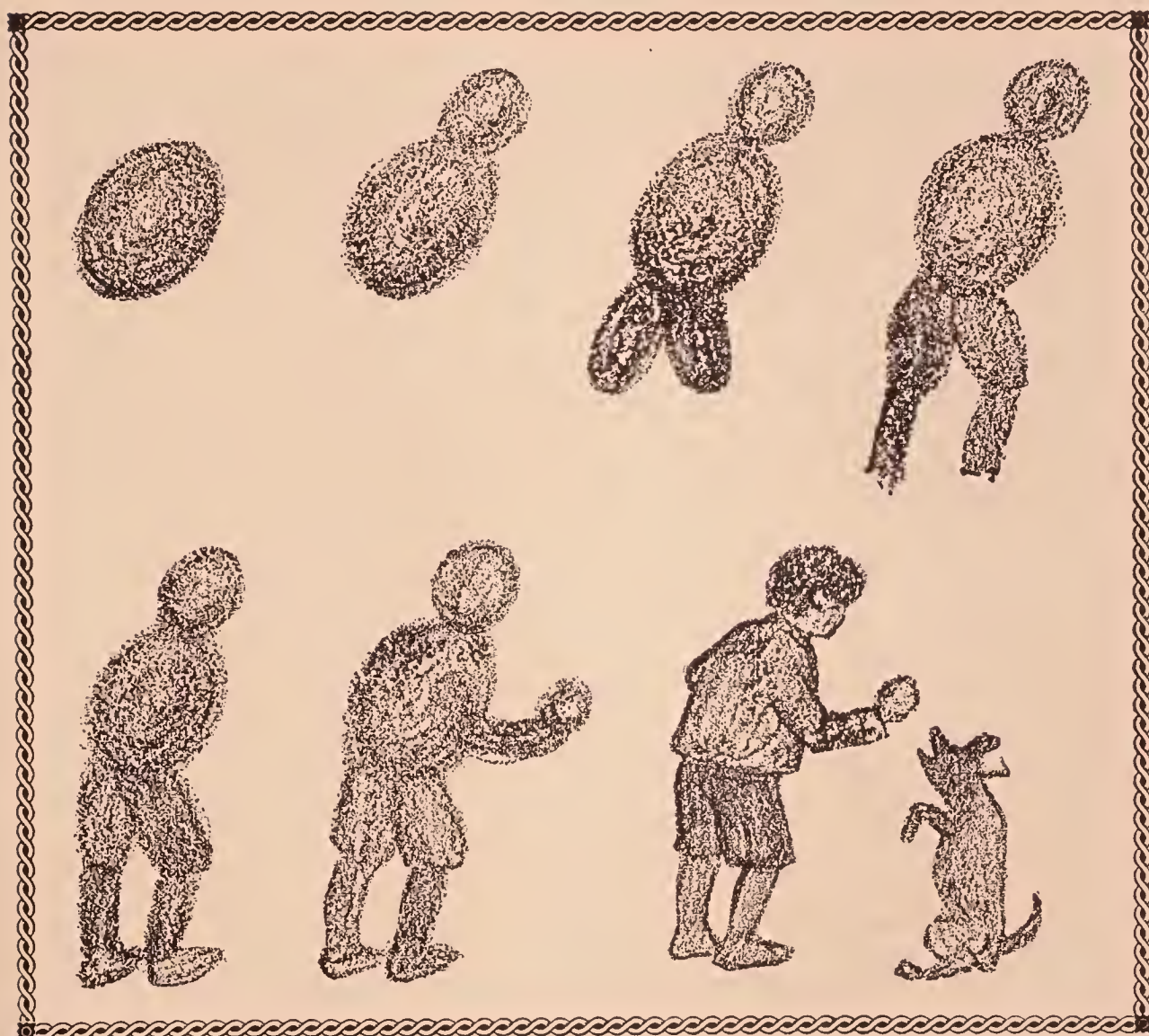


SIMPLE MASS DRAWING WITH CRAYON



As the children grow older and more skilful in the use of crayons, they will be able to get more of a costume on the figure. Children should not try to show features. The head should first be made with white chalk, with orange strokes added to represent flesh color. Call attention to the length of the arm. Suggest that they stand tall and measure the length of the arm against the body. Does it stop at the waist line? Another thing, which is usually a surprise to discover is that the foot is as long as the head.

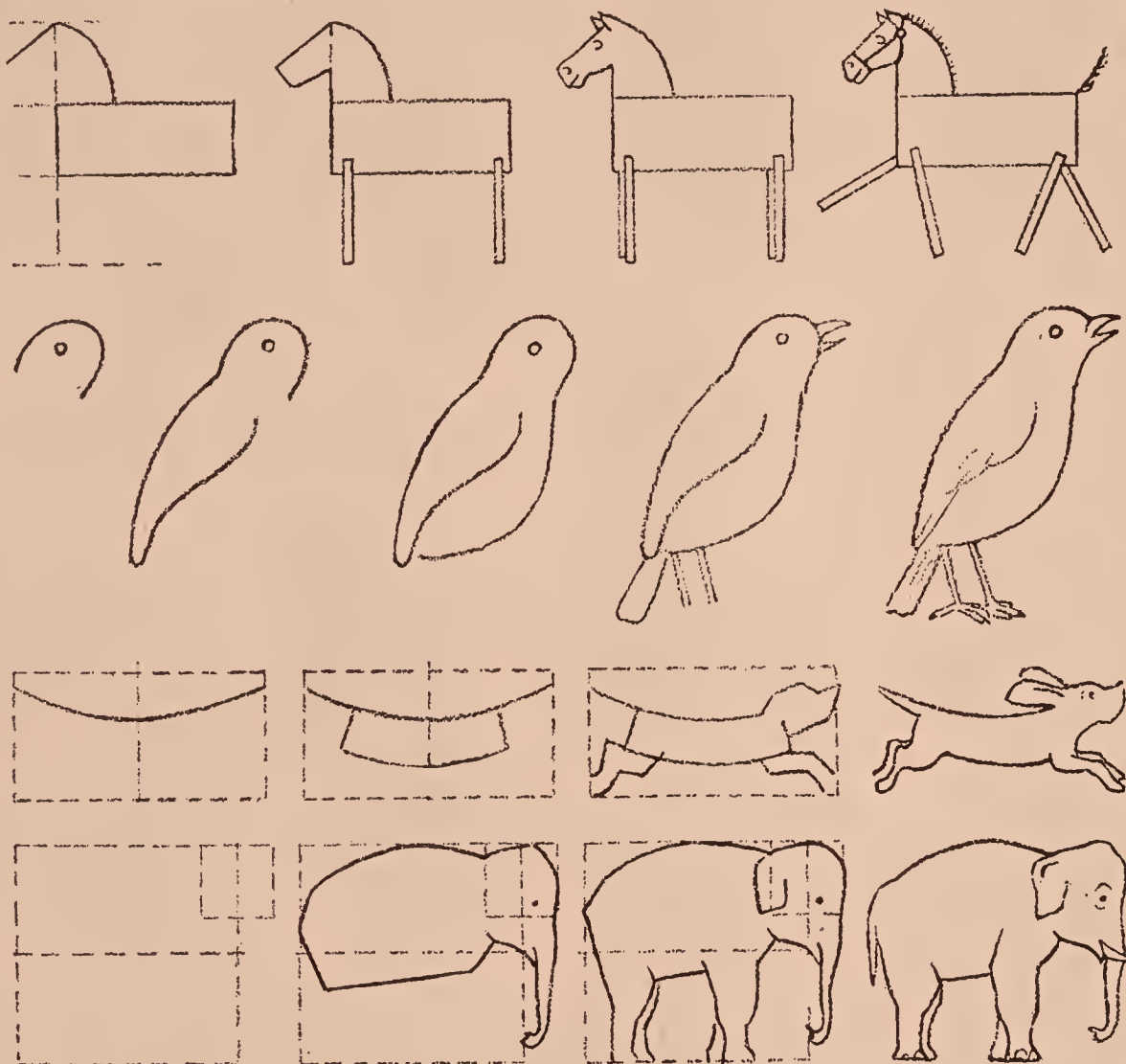
In the making of simple landscapes with crayons or water colors, attention should be called to good divisions of a rectangle. Good divisions mean that the sky space and water space, or the sky and land divisions, will not be equal.



When the crayon is used for laying in the flat tones, it should be laid on in close strokes and not in scattered lines, as this will result in uneven tones.

When a mixed tone is to be secured by the use of two colors, one over the other, the child should be shown how the first color should cover the surface evenly but not solidly, so as to permit parts of the paper to receive the second color. This results in a blending of the two colors so that a pure mixture is secured.

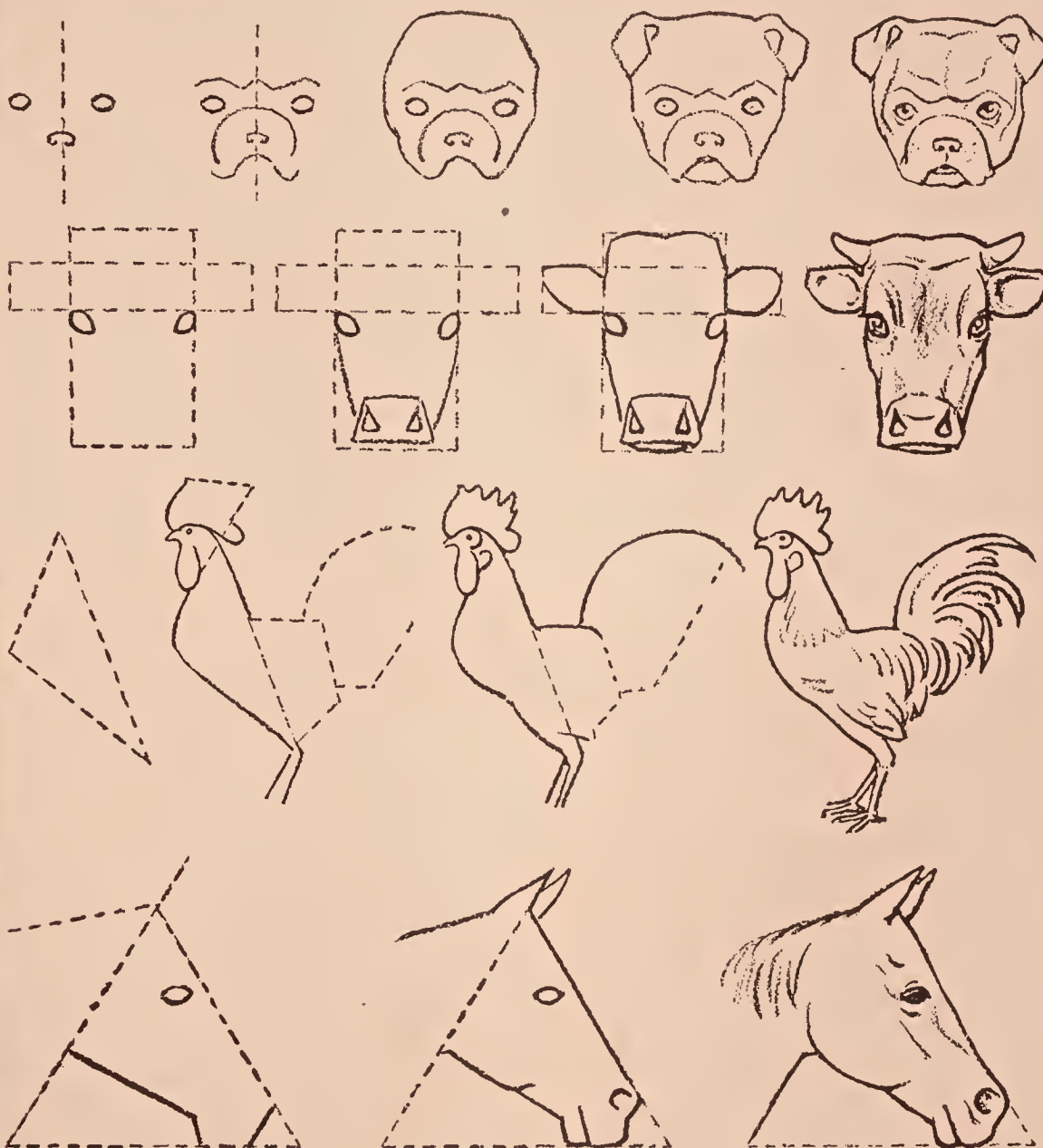
For painting with water colors, the child should sit a little to the left of his desk and have his paper before him. A heavy paper or a piece of oil cloth may be used to protect the desk. The cloth, water pan and paint box should be placed at the upper right side of the desk. Soiled color should be washed from the cakes



FORMS BASED ON RECTANGLES, TRIANGLES, OVALS AND CIRCLES.

When the child has progressed to the point where mass drawing does not entirely hold his interest he should be encouraged to attempt some of the more familiar animal forms.

The examples worked out on these pages are only a few of the many interesting subjects that in general form are based upon the rectangle, the triangle, the oval and the circle.

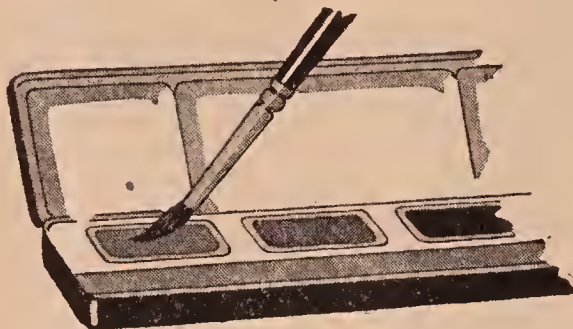


This method of starting with a large simple form, suggestive in shape of the body, or head, and building by simple steps to the completed object, is easily within the capability of the small child, and while affording fascinating amusement is likewise teaching him to see things broadly, approach his problems naturally, master them in logical order.

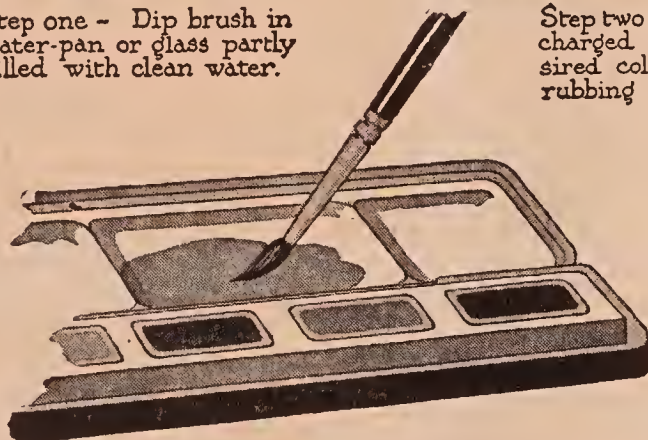
HOW TO USE WATER COLORS



Step one - Dip brush in water-pan or glass partly filled with clean water.



Step two - Carry the brush charged with water to the desired color and with gentle rubbing fill the brush with paint.

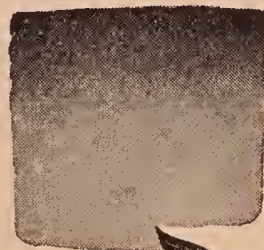


Step three - Deposit the paint in the mixing tray provided for the purpose in the cover of the box and add water as needed to lighten the color. Rinse the brush in clean water before using it on another color, this will keep the colors in the box clean.



First step in laying a flat wash.

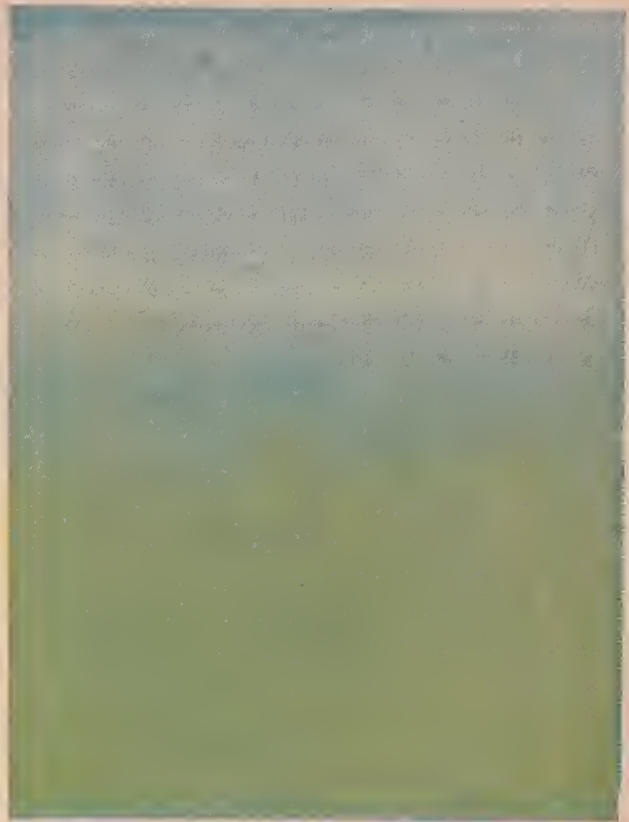
To lay a flat tone or wash, fill the brush with paint from the mixing tray and carry it across the paper from left to right. Add successive strokes, each time filling the brush with more paint, and guiding it so that it touches the lower edge of the last stroke all the way.



A graded wash is made by starting with strong color in the mixing tray and adding to it a little water each time before the brush is dipped for another stroke. A gradation from light to dark is made by starting with clear water and gradually adding color.



1



2



3



4

A simple method of painting a picture in water color in four easy steps

and the box cleaned after each use, before it is put away. The brush should be rinsed in water and the water shaken out. The three colors, red, yellow and blue, are known as primary colors, and from them all other colors may be made. Red and yellow mixed produce orange; yellow and blue produce green; red and blue produce violet; red, yellow and blue produce the neutral tones. Black may be used to darken any of the colors. Black should be used sparingly, as it has a tendency to make colors lifeless and dead.

The combination of two primary colors produces a binary color. Thus orange, green and violet are binary colors.

The use of the pencil should not be allowed at all in either crayon or water-color drawing.

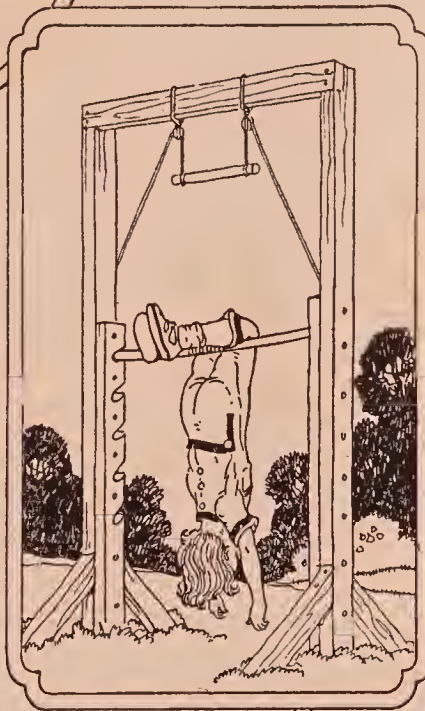
In using water color, when a large surface is to be covered, as a sky in a landscape, color should be mixed in a small dish or the tray of the water-color pan. To mix a large quantity of color, take about a teaspoonful of water and add color until the desired color is obtained. In painting flowers, for example, the color should be lifted from the cakes and placed directly on the paper, allowing the colors to mingle in the brush and on the paper.

The child may wish to make a picture which shows the blue sky and the green grass. It may be called a picture of out-of-doors, a picture which tells of spring. If we see more sky than ground, the larger part of the picture will be blue. Paint an even surface by using a brush full of color for each stroke across the paper (see page on "How to Use Water Colors"). Begin at the upper left hand corner and draw the brush to right corner, holding it lightly. Fill the brush with color (a tint of blue) and join the second stroke to the first. Cover the entire surface of the rectangle. Children should not work over the color after it has been placed on the paper, as this will result in a streaked appearance upon drying. While the blue wash is still damp, take a little blue paint in the brush and then draw the brush across the wet cake of yellow. With these two colors make a stroke across the paper a little below the middle. Carry this color across the paper, taking more color from the paints as needed, until the lower part of the paper is filled with the color of green grass.

The placing of distant trees or shrubs is the next step in landscape painting. The paper is moistened and the sky wash added. The distance is painted before the foreground of green is added. A dark green may be used or a violet mixture, which is made by taking a very little blue, a little red and a little yellow in the brush and applying the color in short vertical strokes to represent the shape of the trees. This should be done before the sky is quite dry. The foreground of green should then be added. The third step in landscape painting is the addition of trees which appear in the foreground, small buildings, etc.

His Gymnasium

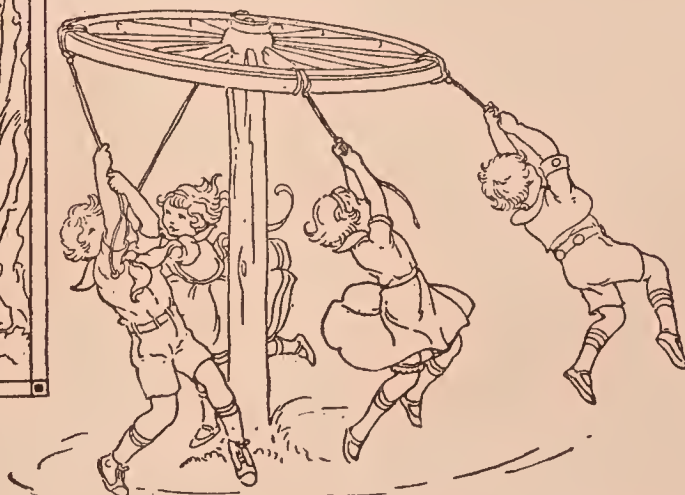
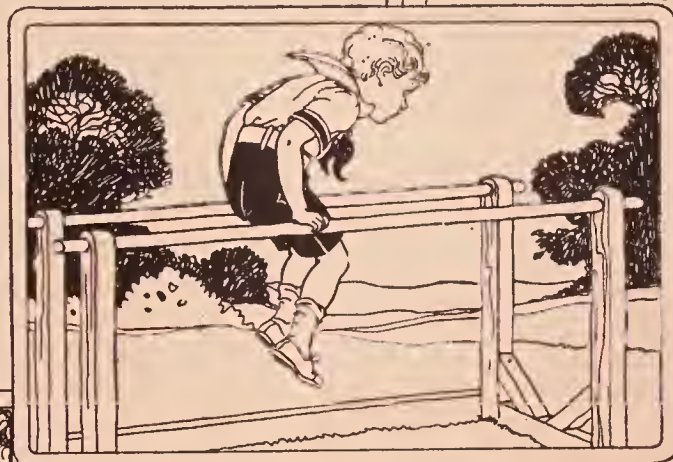
4 TO 7 YEARS



These plays require greater bodily control, courage and skill. The child is finding out the possibilities of his wonderful machine and learning the secrets of its control.

HIS GYMNASIUM

4 TO 7 YEARS



The human machine is very complicated, and it takes many different activities to give a development and a mastery of each of its parts.



The Young Child and His Learning

CAROLINE W. BARBOUR

"Anyone of you who will watch a child at play may see Man the Maker taking shape before your very eyes through building blocks and the making of mudpie palaces. Man the Poet born in the chanting and dancing games, Man the Nurturer growing through play with dolls and pets and plants and younger children, Man the Scientist evolved in plays of imitation, of exploring, of collecting, of classifying . . . and Man the Citizen in the great team games."

Excerpt from *Play in Education*—J. E. LEE.

COMMON SENSE, as well as the scientific study of children which has been going on in these last three decades, has opened our eyes to the fact that the child is busy learning—that he is, in fact, learning all the time. He is daily going to school—to environment, to his playfellows, to the grown-ups about him, *to himself*, learning to read the book of life as the pages are set open for his perusal. What we have suddenly realized, however, is the corollary to this idea, namely, that the young child is learning what is in those pages, regardless of whether the book has opened to a pleasant tale or to an ill-chosen one!

In other words, he is learning as he lives, through participation in living, and it is no longer a question of the recognition that he *is* learning all the time, but of what kind of learning, what kind of schooling, what kind of habits, attitudes and information he should be attaining.

Herein lie all of our modern problems in child-training, all of the possibilities and the responsibilities of our contribution.

The subject for this section is to be handwork for the young child. To see

it in its proper setting and in its significance, we must conceive of it as a part of the child's home education, and as one of his learning opportunities. He has many modes of learning, to be sure, but we are going to discover that working with his hands, working with things, is a very important learning process. Materials and handwork at this early period, at home and at school, are in a large measure both textbook and subject matter for the child's rapidly developing brain and body.

It is needless to tell mothers that the chief characteristic of the two- to four-year-old child is activity. Ceaseless, incessant outgoing-ness occupies a large part of his day. We are beginning to realize that activity is his foremost early method of learning. This outgoing-ness takes the child into all fields of investigation, of experimentation, of experience with the things about him, and with his own ability to control or to manage them. He is exploiting his world, in order to know about it, and to enlarge his own life. As a passive onlooker, a spectator only, of the life moving on all about him, he would get nowhere in this new world which he has set out to conquer.

The child of this period expresses his desire to get into touch with life and to learn all about it, through three main activities. They are, *speech*, which gives him a tool for intercommunication and an understanding of his social heritage; *play*, which is his earliest means of extending his little life through imitative, dramatic or rhythmic action; and *handwork*, the working upon and shaping of things. This latter characteristic and familiar activity of his play and work with the toys and materials of his everyday environment really occupies a large part of his waking day, and is closely identified with speech and play.

Especial emphasis is being put upon this factor of the child's learning, as it has been so little understood and its significance is so much greater than we have heretofore imagined. If we can see its worth-while-ness, its perspective, so to speak, and how it leads directly into working attitudes and habits of industry, the busiest of mothers will be willing to take time out of her strenuous day to help guide and direct her children's handwork.

It takes little reflection as we pick up a shiny little acorn neatly carved and adorned by nature to realize that within that tiny container lie the possibilities of a long-lived, sturdy, splendid oak tree. Why are we often so unreflective about recognizing the potentialities, the seeds of power, the tendrils of native ability put out by our little humans? Nature can never do it all for human beings—that is why we *are* human—so we may find our own way out and up into the blue of Heaven. So we who supplement nature must understand and must supply right conditions for the developing of potential into actual powers. We must have the vision to see in the tiniest of beginnings the promise of enduring capac-

ities and powers at the end. Motherhood and teacherhood call for this quality.

"The mind of man went with his hand until one by one the forces of nature came under his control."—*Chamberlain*.

Do you see anything which suggests plainly this learning, this controlling process, in the incessant activity of your three-year-old? Why does he pull apart, knock down, pile up, look into, tear up, push, shake and rattle everything he can get hold of in this strange new world in which he is? If we ask the question another way, the answer will spring to our lips. What if the child didn't experiment, sense, test and try the things of his new environment? He would never become acquainted with, he would never know, his world, and not knowing, he would never be able to master it. Mind, intelligence, is attained through activity. We say that the child is "muscle-minded." Our first learning has always been, and always will be, *first-hand* learning. We learn to do by doing. Each one of us learned to walk, to talk, to climb, to dress ourselves, to handle tools, to skate, or sew, or read, by struggling through and mastering the intricacies and difficulties of these various activities. We learned the noble art of living with our fellows, not through reading of books on etiquette, but by the social give-and-take of daily intercourse. Indeed, all through life, according to Emerson, "The scholar loses no hour in which the man lives."

So the little child comes into a world "with the strangeness all about him," and his fundamental, first-primer lesson is actively to get acquainted with it. The wider and richer his opportunities, the larger his background of experience, the better the chances are for a mental, moral and physical equipment which shall make him a useful member of society.

The chief business, then, of childhood, is active, eager and intelligent play, and the toys and materials of his home and neighborhood are his tools. We see him playing with things, finding out about things, what they are for, and what will happen to them, and him, if he exerts force upon them. We know now that it is nature's first lesson set for babyhood—to find out all he can, as fast as he can, about all the things that he can, in this place which will one day be his to possess—or to lose. We may hinder or help nature according to the degree of our understanding and our wisdom.

His second lesson, and like all well planned lessons, dependent upon the preceding one, is to begin to use the information, the mastery he has gained. He becomes a "maker," a creator, a shaper of his world through his imagination and play, and for two or three years he is earnestly, joyously and with unconscious wisdom filling out and enriching his life in the only way possible, through his play with people and with things.

His third lesson, again progressing from the other two, is gradually to translate *manipulation* and *play-work* into the work and industry of adult life, for all the skill and power of maturity rests upon this foundation of instinctive tendency.

The school helps in this through the manual activities of the kindergarten, and the manual arts and industries of the later grades. Special schools for vocations in arts and industries, in home-making and nursing, in technical and business guidance, complete the sequence.

But, the home may be and should be the starting place and the complement of all this wide and far-reaching interest. As mothers, you can glory in the thought that you are your children's first teacher, and your home his first school. Pestalozzi, the leader in primary education, said that "the home is the cradle and the *workshop* of the world." While our schools are expected to organize more thoroughly and to carry on more progressively the interests and needs of child life, our homes should always be the mainspring and the center of all such needs.

THE MOTHER'S CONTRIBUTION

In this section, we are going to discuss some of the manifold and varied ways in which the mother may help to train her children through their interests in handwork and in doing things. Provision of materials and place; guidance and training in habits; understanding, patience and coöperation, are a few of her ways of contributing which will be taken up in detail.

Provision of a Rich Environment. Corresponding to the native urge for experience, of which we have spoken at length, should be the supply of varied and interesting materials, richness of opportunity. This does *not* mean *costliness*. We cannot make this point too emphatic. The daily occupational diet of the young child needs to be just as simple and as wholesome as is his physical diet. All the child needs is variety and simplicity of environment, coupled with a large amount of freedom for finding out for himself. The ordinary home condition, adapted with extraordinary intelligence (which is common sense, they tell us) to his needs are just full of suggestions for right activity. Richness of provision, then, is not a question of money, but of understanding, of seeing possibilities in all the simple materials which are in the home surroundings and of intelligent guidance in their use, making of the home an "invitational environment". We shall see in a later section in detail what the home offers in respect to materials.

THE CHILD'S NEED FOR HIS OWN PLACE

Every child, little or big, needs a place of his own for his own things. This is a large part of right environment provision, but it is much more than that; *it is the only possible basis for teaching children habits of neatness, economy and responsibility.* Also, a place of his own, and places for his own things, makes

possible a very valuable form of occupation (handwork, if you please) which has to do with his native tendency to manipulate. Some of this love of pulling out, packing and unpacking, taking down, reaching up, piling, and so forth, can be used and used well in learning to take general and specific care of his things. It is comparatively easy to establish these habits, if we start early enough so as wisely to take hold of and use what the psychologist has so aptly termed "the moment of instinctive readiness"—in this case the loving to take out and put back. Seize this activity-interest and change it by steady and patient teaching into a regular habit of picking up and putting away in the special place provided.

Appeal must be made to his likings, his interests; so we watch what this kind of interest is, and find that part of it is the love of taking off covers, pulling out drawers, opening and shutting lids. This gives us many hints as to the kind of places the child would like to have for his things. Boxes, drawers, little cupboards with child-sized doors, knobs, sliding catches, hinged lids—are all fascinating to young children, and may be used in the service of training good habits. But all drawers, doors, fastenings, and the like should be very smooth running, easily managed and convenient to the reach of the child, otherwise the friction and effort necessary to get things and put them away will seriously interfere with the habits which we are seeking to establish. We must never make the paths of virtue too hard or stony for little feet to tread. Here again the psychologist comes to our rescue, and explains that in early moral life the "pleasant" and the "desirable" in the child's experience are always identified with the "good." Thus it is imperative to us to see that doing right things the right way gives satisfaction to our little child, instead of making such acts a strain upon his nerves, and thus contrary to his inclination.

So look about you for the special corner in your house which is to belong to your little children, where all their "things" may be kept. Preferably it should be a room which if need be may combine play-room, nursery and sleeping-room. Possibly it may be a section of your sewing room, or a window corner of your dining room, or even the triangular section back of your upright piano! That last suggestion has been tried out successfully in many a kindergarten for the "play-house" center.

It is sometimes a question as to whether we Americans realize that homes, after all, are instituted for the children. In planning for a house, a place is very deftly and easily arranged for the "Pullman" breakfast room, yet there seems to be no space to spare for the little child's needs. You say he has the whole house. Not so! for the whole house in this case means none of it especially for him. It does not serve his purposes well, and such lack of consideration is apt to end in adult responsibility for his belongings, or the poor housekeeping which exhibits

children's possessions, toys, furniture and "clutter" from one end of the house to the other.

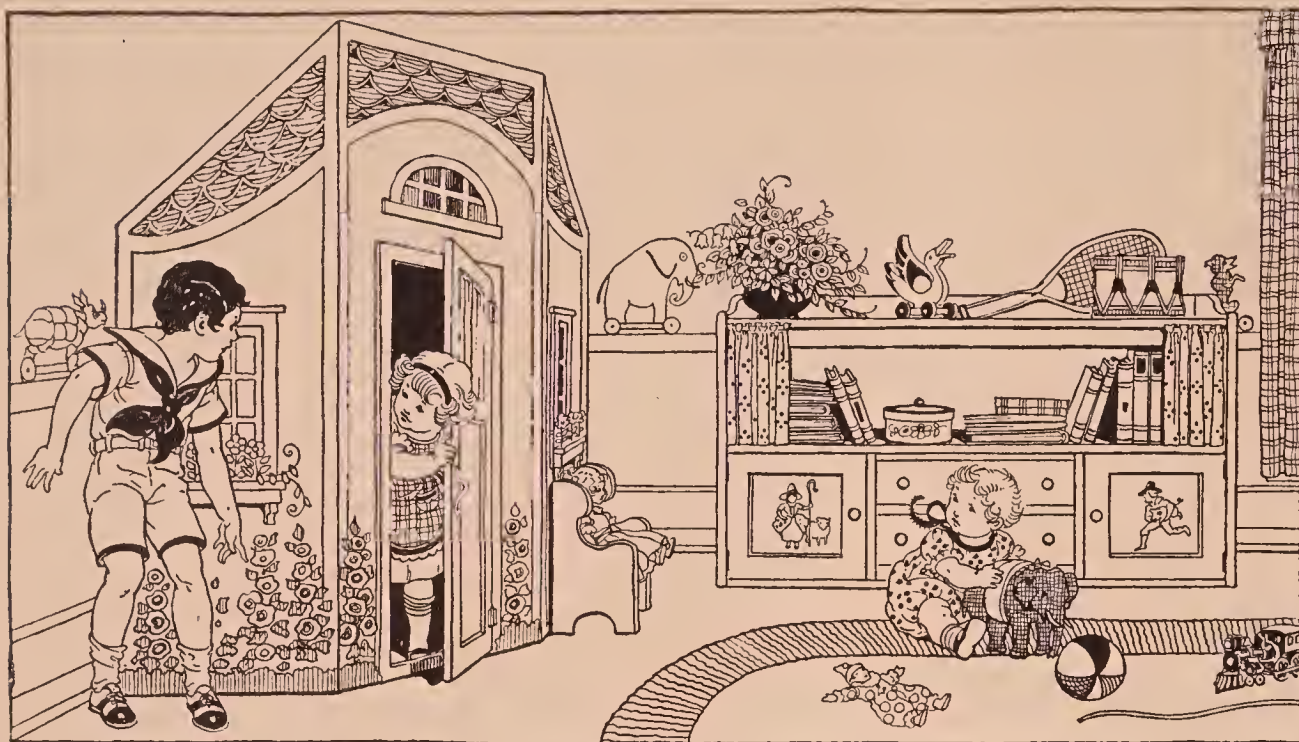
The English way of devoting the upper story to the nursery had its great advantages, but such arrangements are not possible under our American conditions. Nor would it serve our purposes, either, for little children are more closely a part of our everyday life here; they are at table with us, and they tend to share the whole of family life as in no other country, perhaps. Hence we should be all the more careful to provide for their special needs. *Space* in which to work and play, *places* and furniture all their own are, then, essential needs.

Home Equipment. Of course, only the furnishings which will help in the carrying out of the handwork activities will be the ones suggested here, but there are so many practical and economical suggestions which will be offered that even the mother in the tiniest apartment can have some choice as to what would be possible in order to serve the ends we have discussed.

The play-house screen. This type of screen can be of any form from a simple three-leaved screen to a very complete play-house screen, with a front door, windows in the side folds, window-boxes, curtains, and all the accessories which delight the child heart. It may be as elaborate or as simple as ingenuity or purse permits. It is a valuable asset in the small apartment or bungalow, in giving the child a sense of place and possession, and in protecting the rest of the house from the disorder of many childish things. The accompanying illustrations show two designs for the play-house screen, and any ingenious father can adapt the suggestions for his own making.

The cupboard. A built-in cupboard, three to four feet in height and five feet long, gives very satisfactory space for the child's playthings. One part of it should have a door with deep cubby-holes behind, for his toys; the shelves, or perhaps a drawer or two, will keep his papers, tools, and other materials in good shape. This plan for the low cupboard provides a deep shelf above, for books and pictures, or a plant. A bookcase can be used by curtaining with gingham or any soft washable material. The upper shelf, which is harder to reach, may be for very special things. One I saw had the best tea-set neatly placed on the top shelf. Lacking any real cupboard or set of old bookshelves all his own, one part of the buffet, a big drawer in the china closet or in the hall could be this child's. Marking compartments or shelves with pictures will help to tell the little child where things belong, and where he can find them *next time*, if he will remember to put them away. Never forget that *his* place for possession must be easiest of access.

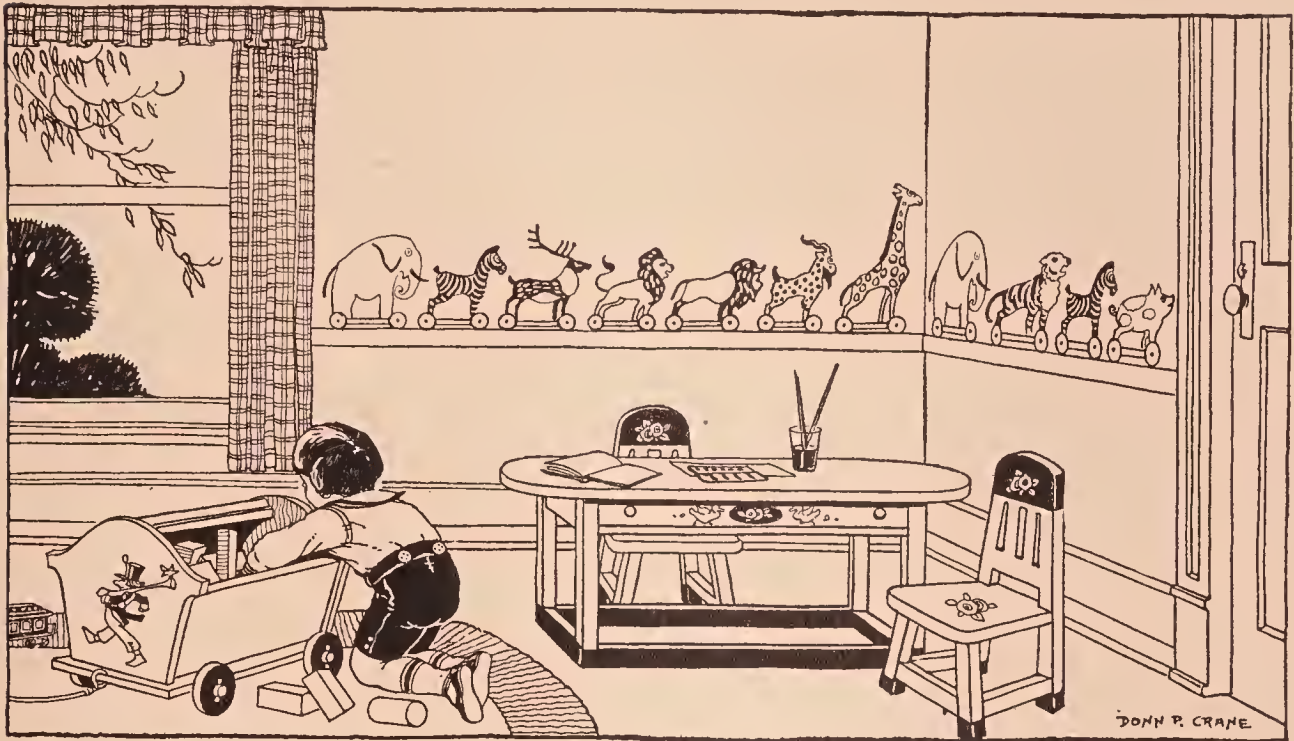
The table. It should be low, stoutly built, and plain. It is a waste of money to buy flimsy fancy child's furniture. Straight line designs with corners curved, should be considered, in suitable sizes. Gaiety of color can be added by paint-



ing in warm grey, blue or cream, with applied or pasted-on designs. Child-like motifs of Mother Goose figures, dolls, toys, and animals or flowers may be cut from cretonnes and glued upon table, chairs and cupboard doors. Adding shellac will give durability to the design. Another delightful asset of the little table is a drawer, in which many treasures may be kept. If there are several children in the family, a kitchen table can be found which has a circular top and folding leaves, to make it of convenient sizes. The legs can be cut down to the twenty-four inch height and "gliders" may be put on them. This makes a very practicable piece of furniture. A plain chair and a rocker, of which there are many good designs on the market, complete this simple equipment, except for a chest.

The chest should have a lid that fastens back so that it will not fall upon the child's head or arm as he works in it. It is for the purpose of keeping blocks in a very convenient and accessible manner. (For detail, see "Blockbuilding.")

It may be any size suitable to space and uses, and should be on castors. A very simple chest can be made of a soap box or cracker box, with "gliders" put underneath. Sometimes cleats are nailed across the bottom at the two ends and wooden wheels are fastened on. A good coat of paint and a stout cord in the front top edge will give you a very serviceable piece of furniture, and a toy as well, for carrying and holding the blocks. This little contrivance, which is being used in many kindergartens, is a great help in teaching children to take care of their building materials. They love to haul the blocks away in the wagon, and for



the small number that an individual child has, the same "wagon" serves as a place in which to keep them.

Other suggestions as to ways and means of keeping track of and places for the children's occupations will be brought in with the detail of special kinds of handwork. The aim in giving these suggestions is that they may serve as hints to parents for adaptation to suit special conditions of each home. All of this planning and arranging for little people's needs takes so much time, you may say. Well, so it does, but it does not need to be a burden. It has to be, however, frankly accepted as a responsibility, because it is so worth while and has so many returns in relation to the child's whole training.

Mrs. Washburn says, "The more time and attention of the right sort given to the young child, the less time will need to be given as he grows older." That is why the old-fashioned attitude that "It is easier to do it myself than to show my child how" never gets us anywhere. Mothers are bound to be teachers, if they would fulfill their motherhood; never forget this. So the above rule applies most surely to our provision for helping children gain in sense of possession and responsibility, and happiness in wholesome occupation. Part of the mother's contribution, then, is understanding. When we appreciate that our efforts are worth while, we are content to give whatever time and strength are necessary. Ingenuity and resourcefulness on the part of parents always bear a close relation to originality on the part of their children.

TRAINING IN SELF-CARE AND HOME ACTIVITIES AS A PHASE OF HANDWORK

The home alone, or in a large measure, can give a very important training in self-care and in household occupations which are beginnings of hygiene and physical education. Have you ever thought of the variety of daily activities in the care of person, in simple duties about the house, to which you may train your children? Have you ever thought that they are genuine forms of manual work, the beginnings of household arts? To look beyond our present effort to the future gives to us a sense of values.

"The great opportunities of life come in living so as to do as much as possible for one's self and others; and children can begin all this work by helping to dress and undress themselves and by doing everyday things in the nursery."—*Margaret McMillan.*

Hand-training, body-training and eye-training are *all habits of self-care*. Learning to wash face and hands, to brush the teeth, to fasten shoes, to dress and undress, to bathe himself properly, to brush and comb his own hair—all of these attained mean a remarkable degree of skill and eye and hand coördination. An excerpt from Miss McMillan's *The Nursery Schools* will show you an interesting analysis recorded by a trained observer of the movements which a child of three gets under his control by learning to bathe himself. To manage with ease and dispatch a series of acts which before he could only do clumsily is what we mean by coördination.

"Our children enter the bath and there, as a rule, we find how helpless, weak and uneducated are their poor little hands. They sit down and splash a little, or stand idly waiting for some one to come and help them."

"It is forgotten that this limp hand has a brain center,—not one, but many. A large part of the brain is involved in this limpness. These centers, like all the others, are developed *by use*."

"There are twenty-six movements involved in the common task of washing and another twenty or more in dressing, and our children of five on entrance cannot make five, in some cases, out of forty-five. Yet they should make them all at the age of three, and be as expert at five in them as in walking, moving or jumping. And they would be glad to learn."

Habits of Helpfulness and Responsibility. Three- and four-year-old children can learn to pick up their clothes. Pegs or a clothes-tree easily reached by the child are great helps in fixing this habit. A gay chintz bag with pockets for his own little boots will tempt any child to be a caretaker. Five- and six-year-old children can help younger ones to dress, and can learn to open and spread back their own bedclothes for the morning airing.

Learning to Fetch and Carry. We need more faith in child ability to carry things. Dr. Montessori has shown how much training in steadiness and poise the responsibility of bringing in a hot dish to the table requires. Our children need more practice in doing such things. Helping mother to set the table can begin very early. The little "toddler" learns to carry a dish clumsily yet carefully with his two hands, while the six- and seven-year-olds may begin to serve at table, helping between courses. Some one little responsibility only should be their share, of course, as all this gain in independence, poise and social service must be of slow growth, and a source of pleasure to the child through approbation and a sense of "being big." A seven-year-old (boy or girl), because physically well coördinated, has a fair degree of fine muscle control and may be permitted to help serve at a tea or an informal dinner party. Such an experience is a great joy and pride to the child, and puts a stamp upon all that he has been trying to do in the way of being helpful and skillful. Carrying a tray with napkins or spoons, or the cake basket into the living room is something very "desirable."

Children love to arrange flowers, and they can be trained to do this very early. Carrying the vase or the potted plant back to its place after being watered is a fine training in grasping and holding—fundamental control for hand and fingers. The investment in several low bowls with flower holders will have a rich return in children's good habits, esthetic feeling and a growing love for beauty in the home. The low bowl shape is very stable, and fitting a stem in each little flower-hole is an instinctive delight to most children. One bowl should belong to his own "corner."

We need, also, to recognize the mental elements in such training. Taking simple directions, running errands, returning with message executed, are tests of intelligence, and are so used in the mental tests for the five-year-olds. But we must be very patient with children, and give them a little opportunity for errand-doing each day, if we are to expect good results. Also, we are to avoid the other extreme, and to remember that little children have business of their own, other than doing odd jobs for grown-ups. A tiny errand for the littlest one each day, a middle-sized one or two for the five-year-old, and a quite responsible bit of fetching and carrying for the seven-year-old each day will be of great value.

Such training in self-care and in daily sharing—a tiny sharing of the family occupations—is a fine equipment for any child to have, in its emphasis upon individual control and social traits. The mother who does this well has made a curriculum for the habit training of her children which cannot be bettered. At these early years little distinction should be made in these occupations as to boys and girls, except possibly for some special aptitude. The occupations suggested are

good in every way—good physical exercise, some for fundamental and others for accessory muscular control—and each carries with it social and mental accompaniments. There is a good physical release and using of bottled-up energy in five-year-old Bobbie as well as in seven-year-old Rose when they shovel off the snow on the front door-step. And, again, Rose may take more esthetic delight in arranging flowers, but Bobbie will be willing to help her pick them, and will want to stick some into his own flower-holder.

HABITS AND STANDARDS

Keep in mind a simple principle of progression in habit formation. We are beginning to speak of a "habit-curriculum," meaning a graded series of what habits to expect in growing children. Patience will be less strained, happier responses will be made by our children, if we set the tasks and guide the activities very simply and carefully for our little ones. Expect much of it to be playful or in the spirit of play. "One, two, button my shoe!" is a greater incentive to the small sister tugging at her buttonholes than is a command.

Habits are daily reiterated and recurring lines of conduct, which when repeated a sufficient number of times will tend to act automatically, or nearly so. So as many good habits as possible should be established early in life, become automatic, and thus leave the growing child free and ready for the new learning in his widening life.

Attitudes are in a way habits, also; an attitude or emotion of cheerfulness, of industry, of friendliness, can be inculcated day-by-day, here a little and there a little, until the sunniness of disposition, the dependability, the courtesy, and friendliness of your little child can be counted upon as a habit may be, to carry him over and through the vicissitudes of life.

Standards are built up by both habits and attitudes. Adults, the environment, life itself sets up standards for the young child, so we have to be very careful as to what we are offering for his imitation.

The most important contribution that the mother can make is right here in the standards set up, the attitudes established, the habits or skills started in his daily occupation. Independence, initiative, orderliness, cheeriness, joy and the delight of life itself (which is childhood's chief asset), self-care, creativity, executive ability and dependableness, control of hands and body, coördination and skill, observation and mental alertness—all of these and many more habit attitudes may be set up by wise occupations, and the standards growing out of them are many. "It is better to play and to work than to be idle." "It is best work that is wanted." "Helping mother is great fun." "I can hang up all my own things." "I did not forget a single errand."

At no later time than in these first seven years can a child learn so well to be constantly and purposefully busy. Note that latter word. He is going to be busy *at something*; our guidance will help make that busy-ness more and more purposeful and worth while to himself. What an asset in later life such a training will be! To be actively, happily busy, to have learned to help, to have run errands, to have made worth while things, to have shared cheerfully in the work and play of the family, and to have established an "emotional-habit"—the attitude of liking it all!

HANDWORK ACTIVITIES IN THE HOME

CHIEF INTERESTS

These interests show themselves in two ways, which may be classified so as to help us in guiding our children. The first way of classifying might be determined by the age of the child in relation to materials, showing manipulation interests, the play interests and later work interests. These all merge into each other, but they hint to us of the natural progression towards which we can aim. This is taken up in full under the topic *Progression*.

The second way of classifying the interests may be as to the ways the materials themselves are used. The range of constructive or making interests points out the strong tendency for as varied an experience as possible, and the list is long.

- (a) Constructing or making with boxes, paper, string, wood and spools.
- (b) Sewing with cloth and cardboard.
- (c) Building with blocks, sticks, furniture, etc.
- (d) Moulding or modelling with sand, mud, clay, snow, dough.
- (e) Drawing with crayons, chalk, pencil, paints.
- (f) Cutting and folding for constructive purposes, and for picture making.
- (g) Stringing beads, seeds, buttons, etc.
- (h) Cooking, household activities, chiefly in play form.
- (i) Gardening, chiefly in play form, assisting and sharing.
- (j) Collecting, picking, gathering, pasting, and sometimes classifying, chiefly small miscellaneous articles and nature materials.

A very long list, you may say, but it is not in the least exhaustive and does not include many of the things done by hand in each busy day of the child's life.

THE MATERIALS AT HAND

What have you in the home which children like to use and which they have always tried to get hold of to "make" with? First of all, every home has practically all the tools a young child needs except possibly a good, small saw. For children need very few tools; their business is to get acquainted with and train those very wonderful tools, their hands. But, like us, they also wish to extend their ability and to use tools other than their hands.

Check off this list, and you will be surprised at its simplicity and at the equipment you have at hand:

TOOLS

Scissors: a five or six inch pair of good steel, sharp-pointed scissors.

Nails: of several sizes, with flat heads.

Hammer: of any medium weight and size (not too large).

Needles: coarse darning needles, preferably one packer's or burlap needle—bodkins.

Pencils: big thick ones—blue, red and black.

Paste: the source of supply being the flour bin, water and a recipe (see below). Also the real cream paste on father's desk.

Paste-sticks: toothpicks and bits of flat sticks.

MATERIALS

Boxes: Laundry, cardboards, backs of writing tablets.

Papers: Newspaper, wrapping paper (always save the colored), paper bags, tissue paper, backs of magazines, unused portions of writing paper from letters.

String: Cords of various kinds, sizes and colors. A bag of all extra bits of zephyrs and flosses.

Cloth: Rag-bag and ribbon box. A special bag for suitable sewing materials for children,—gingham, soft wool, silk pieces, rags suitable for rag-weaving and braiding.

Spools: All sizes and kinds.

Buttons: Especially those with large holes.

Wood: All soft wood—save the Christmas boxes, grocery boxes, etc.

MATERIALS WHICH MAY BE ADDED AT SMALL COST

Saw

Colored paper

Beads

Paints, in boxes and cans

Blocks

Coarse wools and cotton-roving for weaving.

Colored paper

PASTE RECIPE

One teaspoon of alum.

Four cups water.

One cup flour.

Mix flour with a little water and beat to cream. Dissolve alum in the rest of the water and bring this to a boil. Stir into cream and cook for twenty minutes, or until clear. Stir occasionally, for the mixture burns easily. Strained oil of cloves may be added.

How these materials and tools serve to awaken interests and constructive tendencies:

There is a very simple law of psychology which shows the close relation between action or response and the outside stimulus which awakens it, and also the fact that the response corresponds to or is like the stimulus. Any instinctive tendency will be aroused by a kindred stimulus. A baby will seize a rattle and begin to shake it violently. A two-year-old will try to mark when he gets hold of a pencil or crayon. Put any youngster into a sandpile and he will at once begin to "dig in;" or upon a hay stack, and he will start sliding. Books suggest turning pages and looking for pictures, while being with people who are at work sets one's fingers tingling with the desire to work, too.

We find the home, then, may be rich in the right kind of way, with materials stimulating to good activity, and with an atmosphere conducive to self-employment and happy work. The only fact remaining is the question of method.

Method: That has a rather fearsome sound outside of the schoolroom, yet after all method is just the "how to do" of things, just a way of organizing our ideas and of seeing how we may "get them across." We wish the handwork in the home to be of greatest value to the children of that home. Then isn't it better to take stock of our ideas, and to see what we need to consider, and the simplest way to go about it all?

What we desire for little children is that they may grow more self-helpful, may be happier in their work and play, and may develop habits of self-employment and independence. We want to help children to help themselves. In modern elementary education we have tried out this way and found it good, so we have given a new name. We have called it the "Project Method." All it means, in a nutshell, is that an individual should learn to undertake things, to purpose, to enter whole-heartedly into all that he does, to become a leader able to plan, able to execute and to achieve worthy ends.

Are you, then, a "project mother?" You may easily become one. If you understand the steps which lead to purposeful activity for your little ones, if you help him to do for himself without doing for him, if you supply suitable materials to meet his needs, if you help him to see, and to attain his own ends, if you appreciate (and thus emphasize) his achievements, if you see in what he has done the promise of the next and better doing, then indeed you *are* a "project mother."

It is at once the easiest and the hardest method to pursue. Easiest, because it is such a natural way, and because teacher and child grow so rapidly and so happily in their learning together. Hardest, because it is a subtler, more indirect, more *intelligent* way, because it requires more insight, more appreciation, than the autocratic dictating method has ever required, or ever could.

Progression. So far as progress through this method is concerned, it is just a gradual development from the early natural methods of the child's learning to the later ones. We spoke of the "lessons" he was learning and of their sequence. So we must expect and encourage much manipulative play for the two- to four-year-old and supply the materials for it. Bead-stringing, pounding nails in wood, piling up blocks, slashing paper, together with all sorts of handling, investigation and exploitation must be expected and provided for. It is marvelous the amount of information and fact-gathering which the young child gets in this way. Professor Preyer* has said that "a satisfactory theory of play is still wanting, yet a man does not learn through any kind of instruction or study in later life anything like so much as the child learns in the first four years of his carefree existence through the perceptions and ideas acquired in his play."

The second lesson and the method to be used is *play*, or the use of all this acquired information and the fundamental bodily control which the child has gained, in serving his real play purposes. "Play is a ceaseless activity, enlarging the possibilities of human achievement."—*Sedgwood*.

Play is the work of the four- to six-year-old child, and we distinguish it from work only because so far as the child is concerned he is more immersed in the joy of the activity than in the result. Hence, play has no strain; it is free and spontaneous, not bound down by necessity, as is work; but, contrary to our adult notions, it is never aimless; it is serious, and it should grow more and more purposeful as the child develops. Play aims are very near and vital, and the constructive plays of the five- and six-year children should show definite gain in planning and working out little projects. Through the six- and seven-year periods, and on, the play-work ends show more definitely. While the boy and girl of this later period still make very crude things, yet they are always effective and are for the most part for use—chiefly toys or accessories for their dramatic plays. Part of our method should be to see and guide this working element so that our six-year-old doesn't rest content with the four- or five-year-old occupation and result. The six- and seven-year-old children may be expected to plan handwork which takes longer time to complete and which involves processes not always in themselves interesting. The measuring and sawing for the "real" hut the boys are making, the sewing of the rags for the big doll-house rug, may get a little monotonous, yet ability to keep steadily at the task and the habit of persistence are traits necessary to successful work in later years. The need for the article urges its manufacture, and a little encouragement from father or mother helps to keep before children of this age a growing standard of work.

*The Infant Mind.

BLOCK BUILDING

The problem of block building at home is a rather difficult one, as a satisfactory equipment is more expensive and far more cumbersome than the rest of the handwork materials, but the values in such occupation are very great. Children who attend the kindergartens of to-day love the blocks because they are so big, so easily handled, so readily obtained from the big chests or trays, and so easily put away again. Moreover, they always build upon the floor, a method which came from the home, and which at last our kindergartens have realized is the most natural and healthful way of playing with the blocks; and they may leave such building a week at a time if they wish to carry out a play, or to go on with their building plan.

How much of this can be done at home is a matter of place as well as space. In a playroom or a spacious corner, the five-year-old, busily engaged in building a railway station for his train of cars, would know that he could leave it on the floor to play with again to-morrow. His purpose in building and the end to be attained are very important elements in the working attitude which we wish to have develop out of his play. How many of us would be interested any length of time in any sort of occupation, if each day, like the story of the princess' weaving, it had to be raveled and started again from the beginning?

The writer is fully convinced, from long experience and observation, that a large part of the value of building (all but the manipulative values, in fact) is lost when children have to destroy their constructions and put away the material *before* they have completed their play-ideas. The architectural and imaginative ideas which are evidently in process of development in the mind of the child who is a good builder are easily dissipated, and attention and sustained interest is lost by this destruction of the concrete form. Children will work for as long a period as a week upon a house, a big boat, a bridge or a train, and will change, shape and reshape their work, as they play with it, thus defining and making clearer their imagery and achieving the result which they had in their minds. Also, the play incentive is stronger. One five and a half year-old girl not only built her house over three times, but she changed the porches from big front porches to a sleeping porch for the whole family as she played out the experience she had in mind.

SUGGESTIONS FOR BLOCK BUILDING AT HOME

For the three- and four-year-olds the chief interest is in piling up and knocking down, shoving about the floor, and packing in and out of the box. This means much noise and activity, for activity's sake alone, but nature is always wise and we can see hand-and-eye control, finger stretching and strengthening, balance, and big, wholesome bodily exercise developing from this experience.

These are some of the reasons for the noisy floor playing; there should be a sufficient quantity of large-sized blocks so that the child of this age can busy himself as he delights to do, in tugging and hauling them about the floor, or on the airy back porch. Besides these large blocks of brick shape, he needs bricks and cubes. Any good two-inch cubes, alphabet blocks or otherwise, which come in a box into which he loves to fit them, are good. Bricks to correspond (2" x 2" x 4") and domino blocks for the smaller size give the child all he needs for his manipulation purposes. A set of tower blocks or a nest of blocks is a good additional toy. His building, if it may be called that at this period, is quite symbolic, for all he wants is an easily managed block or two to represent his "choo-choo," while he himself is the chief actor, being train, boat or whistle as the case may be.

The five- to six-year-old has learned to manage blocks and to fit them together fairly well, so he wishes to use this knowledge in making the buildings of his imaginary world—"real" things, such as boats for his dolls, a garage into which he can wheel his toy automobile, houses, stores and furniture. His ideas are growing rapidly, and his constructive interests are concerned with play results, and the forms he makes are more and more lifelike. Two little girls built the inside of a house, and put in all the furniture, including "trim," bits of colored paper for covers, soft pillows and the like. This was the living room for their little dolls, and they played in it and with it for several days. To meet this need for better representation, the child of this period needs more variety in his blocks. He can and does want the cubes and bricks, but he wants posts and roof pieces and boards, so as to make more realistic objects for his play.

A box of blocks like those of the Hennessy Building Blocks* is very good for the five- to seven-year period, and would serve all the block building purposes at home. They are quite expensive, but of hard wood, very finely cut and durable. If the total amount put into flimsy and perishable toys at Christmas time were to be put together, such an outfit could be purchased. Another way of getting fair-sized block materials of sufficient variety for the needs of older children is to order from the same company one box each of the so-called "Fifth" and "Sixth Gifts," a cabalistic name which will, however, bring to your door some very accurately and carefully made blocks. These can be put in bulk into a larger receptacle and are excellent material for building purposes. Many satisfactory reports have come to the writer from homes where this investment has been made. They are lasting and have provided interest for several ages of children. By doubling their measurements, which are based on the two-inch cube, the local carpenter can make larger bricks. Two-by-fours will make quantities of good

*Thomas Charles Company, Chicago, Illinois.

building material for outdoor work, but they need sandpapering. Out-of-door play with blocks is very valuable, and should be accented as much as possible. If your environment includes a woodpile and kindling, one of the best invitations to wholesome occupation which has ever been invented is at hand for your six- and seven-year-old!

Puzzle blocks and the intricate stone blocks of various kinds on the market are of little value at this earlier period, as they call for very exact and accurate handling. Number and form concepts and the relation of forms and sizes to each other are basic experiences in preparing children for mathematics. Block-building emphasizes all this fundamental work in numbers.

WOODWORK

The Place. This should be where father works, if possible, or at any rate in a special place, with a wood-box, where a box of nails, blocks and bits of soft wood, wooden boxes, a stout hammer and a little saw may be kept. Out-of-doors on the back steps, in the shed, or in shut-in weather, in the basement, these are places where small boys may spend many a busy hour in experimenting, discovering, controlling, and finally making toys and objects of wood. And how they love it! There is a vigor to the experimentation with hammer, nails and wood, and a gain in fundamental control which is satisfying, at least, to the little pounder. What does the four-year-old do? He just pounds! What happens? A manual training teacher tells of a three-year-old child in the country who with his grandfather's hammer drove a soft wood block solidly full of big-headed nails. He learned to drive them straight and true, and he acquired an unusual degree of eye-and-hand control through this simple experimentation. It was a valuable experience in acquiring skill under entirely natural conditions. Just pounding!

The five-year-old can do many surprisingly good things with wood. He can make wagons out of starch boxes and soap boxes, and furniture, very crude, but satisfactory for this period. He discovers that a strip of wood and a cube-shaped block nailed together, make a very good doll's chair, or one big enough to sit in, if the cube is a box and the strip a board; also, this same box with a strip of board nailed across it makes a table. He makes little ladders and funny little aeroplanes. With just a little help and the use of a brace and bit, he can make a Jenny Wren bird house out of a chalk box. The constructive ability develops very rapidly with children whose interests, or whose parents' interests, lead them to working with wood. The results seem to have a sense of permanence and value which put a premium upon child activity, and build up confidence and the feeling of being a power.

With the six- and seven-year-olds we notice a change into very realistic construction of toys or articles they need in their play. Wheelbarrows, fences—

"Keep off the grass" signs, bird houses, wagons, huts, and all sorts of outdoor contrivances are put together in crude but usable shape. Here is where father needs to apply the same rule of taking time to teach his boy, instead of doing it for him, that mother has to use so constantly. A father of a seven-year-old boy made him a clever wooden sled, and while Jimmie hovered around and picked up chips or shavings, daddy did all the work. The sad part of it was that Jimmie could have made that sled, sawed the slanting sides in the mitre-box, and could have learned many valuable handwork and headwork lessons, had his father been a willing and patient teacher.

PAINTING

Are you willing to let your little youngster do real painting? If so, keep in a safe place several cans of ten-cent-store paints and an old brush or two. To be permitted to do *real painting* is a greatly appreciated joy as well as a good training in standards and in achievement. For not everything can be painted—oh, no! Painting is a special privilege for bits of work well done, for the "best" clay dish or wooden boat, or aeroplane.

Painting the box-wagon which is to be used for hauling and holding blocks, and even painting, a little at a time, the furniture for the child's own corner gives an hour's occupation for several days to a five- or six-year-old child. During the war, five-year-old Roger made three wonderful (?) aeroplanes of wooden slats and a couple of spools, and he "camouflaged" them (using and understanding the word, yes, indeed!) with gray paint and wavy lines of black and green. Jimmie, only four, made a "gun" which he painted black, leaving several unpainted places for his fingers, so that he might carry it about with him before it was dry!

The coffee cans and containers which are to hold crayons, beads and small paraphernalia in the play-corner can have the first coat applied by your small son or daughter, and when they are all painted the soft grey-blue or black or cream of the furniture they add to the color scheme and give the child a sense of sharing in the work to make his corner pretty. A six-year-old child can cut out and mount on the covers a design which adds daintiness to the effect. At bulb planting time the flower pot can be painted and even a little design may be put on it.

Strawberry boxes make good receptacles for crayons and beads, and have the advantage of being open-topped. Grape or peach baskets are good holders for miscellaneous toys and materials. They can be stained with wood stains by the children. Use a stencil brush, size 5.

Incidentally, this large brush work is the best preparation for blackboard writing and drawing at school, and gives children a good degree of skill in the handling of the brush. The free movement of painting a whole surface is always

a valuable first step in learning to paint. It is "washing" the paper on a larger scale.

The child must have a painting apron for this work, and he can make it himself, as all that is necessary is an oblong of light-weight black oil-cloth and gay colored tapes. These may be sewed with big, crude stitches to the two sides of the oblong for strings. One tape may be sewed to the two corners of the narrow side for the neck. This simple apron made by the child is usable for clay work as well.

THE USE OF PAINT BOX AND CRAYONS

Provide a three-color paint box, and a number 7 paint brush, and the cheap manila paper which is supplied to the schools, or a white wrapping paper. Expect your child to work on the floor, lying flat, or sitting, and let him have big pieces of paper. Newspapers make protective "rugs" for this sort of work, and to lay down the newspaper before he begins is a good habit to establish. Free painting, daubing, letting pieces covered solid with color dry to use for cutting, gives the child first experience and chance to experiment with color. His love of color is dominant at this period, and the paint box gives him an opportunity to revel in it. Using the pieces afterwards to cut in strips for chain-making, or to cut up for colored baskets, or to fringe for doll-house rugs, gives him more and more motive for the daubing, and sets a little value upon it. This free work is of much greater value physically to the five-year-old than painting in books. Occasionally children of this age use the latter, but only to daub over the pictures. A six-year-old has sufficient hand-control to learn to paint inside the outlines of pictures, so the painting books begin to have value at this time.

Crayons. To start with, children should have what is called the "Kindergarten Crayons," which come in six colors, with brown and black. They are five inches long and thick enough to be easily grasped. Again he must use big pieces of paper. He masters the use of crayons through scribbling. Nature never wastes her fundamental motions. All this scribbling is like babbling, and an essential step in the language of picture making. The three- or four-year-old must scribble in order to get skill, to be able to hold a pencil easily, and to learn to manage a variety of lines. Then, unlike the painting, he begins "picture writing." Draw with him, mother; let him make parts of the picture. He'll make a big round O, and you'll put in eyes and nose and mouth. As you draw, talk to him, and how eagerly he seizes the crayon and goes on with the next "story." Very soon he can make a great big round pumpkin, and a big red apple, and blue sky all over his paper. Then come stories of men and animals and Mother Goose rhymes, and other things. As his pictures become more translatable, he is ready for the surprise of a box of Crayonex or smaller wax crayons which enables him

to make a more definite line. You will see evidences of design or arrangement very early in his crayoning: rows of little marks, balls in the four corners and the center, and so on. Seize every opportunity possible to suggest "trim" for the sake of the awakening sense of beauty which is manifested. Let him crayon or color any of the bits of construction he makes. The little girl will love to put a "design" on her apron, whether it be in crayons or with oil paints or pasting or sewing. It is all one, so far as the esthetic is concerned. The small boy loves to trim the soldier's hat he is making for Washington's birthday, or the armband or badge.

The Blackboard. The child's blackboard should be in daily use. This is one of the best occupations he can have. Its use has an indirect value in training the writing muscles, and the bodily posture is excellent, requiring as it does, erectness, reaching and the circular movements of the drawing itself. Interest in letter making and "writing" shows very soon in blackboard work, as the child's blackboard has so many suggestions for outlining, picturing and printing. The young child's first writing is always drawing, i. e., he has made no finely adjusted coördinations, no mechanism for writing, as the adult has. So he makes slow and arduous pictures of his word or letters. After much experience in drawing, for control, and in writing, for precision, he begins to write more easily. This occurs at about eight years of age. So if your child at home can have much opportunity and practice in free painting, drawing and crayoning, he will have a start towards mastery of the complex coördination necessary for handwriting.

MODELING

When we speak of modeling, we at once think of clay. But the child at home taught us long ago that modeling or moulding is an art not limited by our supply of materials for its expression. In fact, he was busy at making mud pies or moulding wet sand with hands or an old tin can, or digging out houses and tunnels, and making forts with snow, long before we awoke to the fact that this very strong instinctive tendency to make forms out of plastic materials was the basis of the sculptor's art. The value to very young children lies, however, not so much in the esthetic elements which are the outcome of this occupation, but in the hand-training. Modeling in mud, clay, or sand gives a varied amount of what are called fundamental movements of control of body and of arms and hand. Grasping, squeezing, patting, rolling and pounding such plastic materials give the best possible training to chubby little hands, fat, short fingers, and the weak, limp wrists. The exercises involved in this manipulation stretch the fingers, and give each one something to do with the rest of the hand (a very important point in hand coördination), strengthen the wrists, and define hand-and-arm movements.



A large part of this play is out-of-doors in the sand pile or the snow drift, which means big, whole-body movements, and much stooping and bending of the trunk and limbs.

For indoor occupation, plasticine or plasteline is a common substitute for clay, but clay powder purchased in a five-pound box makes a more satisfactory equipment. A stone crock to keep it in, and a piece of Sanatos to cover the play table while the children work at it, are all that is necessary. Only work up a pound at a time, and after it is in good shape teach the children to mould it into "apples" with a big thimble-dent in the top. Fill each dent with water, and cover the crock with a cloth. This will keep the clay in good condition for using while the interest in clay modeling is active. The young child needs plenty of opportunity to work with the clay, with no results except his love of doing it.

Five- and six-year-olds will make everything from cookies and "snakes" to marbles, Easter eggs, baskets and dishes. The dishes can be really used in their doll plays, and there is additional chance for esthetic training in painting them and coloring them with the water colors, or in the case of a fairly-good bowl, or vase, painting with grey, blue or black enamel paints. This makes the bit of pottery sufficiently permanent for many play uses.

For play with sand, a sand pile in the back yard should be part of every family's play equipment. The pail and shovel, with an old tin cup or two, are the only tools needed. This is a very social occupation, as well, for the only child who has a sand pile will never be a lonely child. In climates where winter stays for a number of months, a portable sand-box, made by father and big enough for the child to get in, is a great help in giving three-, four- and five-year-olds hours of busy occupation. This same box on gliders can be on the back porch in pleasant weather. Children use every sort of toy and utensil in the sand, and shells, pebbles, sticks and aluminum toy dishes call forth a fine variety of activities which train hand and arm.

FREE-HAND CUTTING

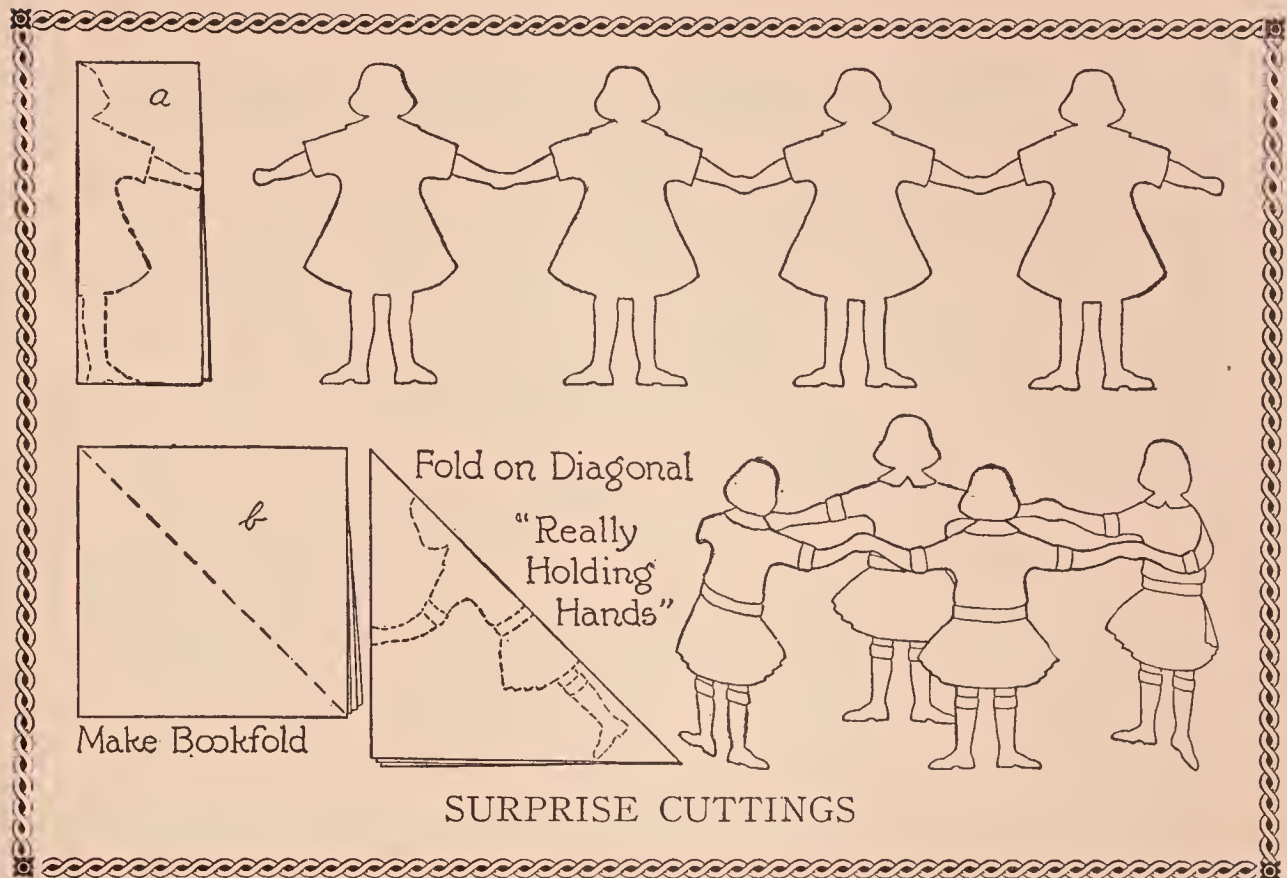
Children's interest in cutting is very fundamental. They love to use the tool, and to make pictures. The desire to get hold of scissors and just cut comes very early with grasping and getting control of things. The child sees us making fascinating motions with those glittering things, and he can't wait to try them. It is well to let a four-year-old do as much cutting and clipping and fringing with newspapers as he is willing to do to offset some of the mischief he may do. The rest of the time keep the scissors out of sight and reach!

Later comes cutting out of pictures from old catalogs, seed annuals and magazines. Two little girls in the long ago used to spend many a happy indoor hour seated on the floor with a big dishpan in front of them, and the *Youth's Companion*—the only illustrated paper in that house—to cut up as they chose. The only law was to keep all "scraps" inside the dishpan.

As soon as some control of the scissors is shown, the child should cut to some purpose. Here comes in one of the values of bookmaking, as he can cut and paste in his little book until it is full of pictures. Other experiences in cutting cloth, in making strips for chains and paper for his constructions will give him by the time he is five a fair ability in the use of the scissors. When he discovers that he can not only cut out pictures for his picture books but can make pictures with the scissors, his interest grows. So you should be able to show him what he can do—how he can cut apples; how a big basket can be cut by folding the paper; how it can be filled with apples; how he can cut a dog that will stand up (a double-fold animal) trees and houses. *But you must cut with him.* The mother who can do things with her children is a rare playmate. The writer remembers the utter fascination of watching her mother cut out a big doll from a folded newspaper. You can all remember instances of that sort. One of the chief instincts of early childhood and one of his learning methods, too, is the love of watching movement. Children become absorbed in any novel movement. We never really lose this instinct—witness its use in advertising. If you see a closely-packed crowd in front of an exhibit window, the chances are that within is a mechanical device, showing how something is being made, or better yet, a human performer.

So cut and draw with and for your children, for much more is involved than the intent observation on the part of your child. He is learning, and suddenly he says, "I can do that." "Let me have the scissors." "I want to make a doll, too." "Please let me try to make a funny pig." Then teach him how to do it.

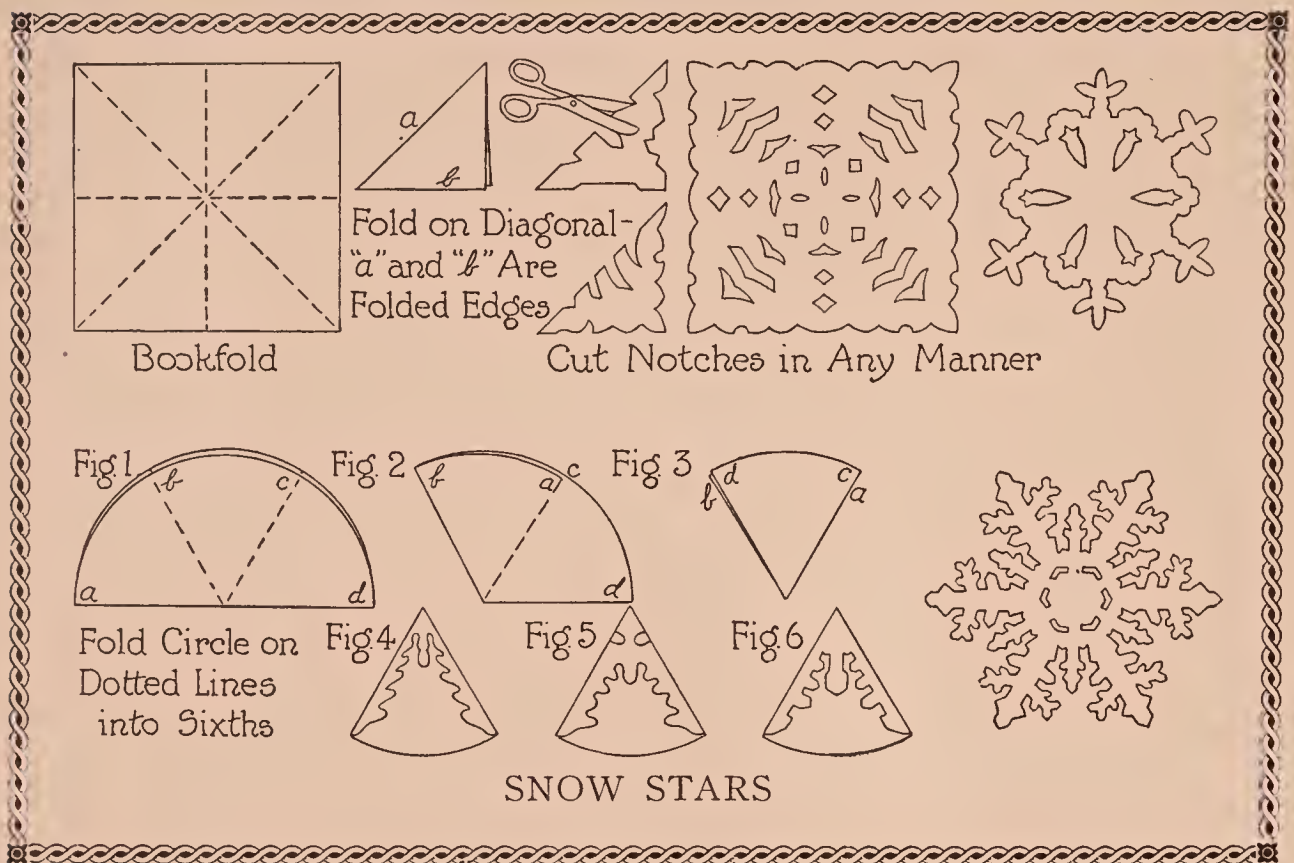
Never do his work for him. Always claim your own drawing or your own



cutting. "This one is mine, but you may make yours like it;" or, "You can make one, too;" or, "I made this part, and you made this, so it is ours together!" For us to do the work, and then let the child claim it as his own, is a poor start in honesty of purpose and willingness to stand for one's own results in later life.

Teach children a way to make their own patterns; much independent and original work will depend upon this. The folded dress-pattern and doll patterns are interesting to make, and stand-up animals and trees add a great deal of inexpensive equipment to their little plays.

If you are very skillful with the scissors, "surprise" cuttings are a great delight, adding the puzzle interest to all the rest. Fold a square or circle into halves and fourths and make a few cuts of any sort. See what results. Let children imitate you, using newspaper squares. Folded in halves, the child can learn to cut trees and houses and all sorts of paper dolls. As he grows in skill, strings of dolls can be made. Fold an oblong piece four times, then cut the half doll as diagram (a) suggests, then pull it out—the string of dolls. Make a ring of children by folding a 6-inch square on its diagonals, and then cut on the thick diagonal fold, being sure that the arms are cut through the outer edge of the triangle (see diagram b). Six-year-old children can do this nicely and get the



incidental training in folding. This can easily be demonstrated to your satisfaction.

And snow-stars! How six- and seven-year-old children delight to make and mount them! See how like the truly ones they are; no two alike. The *National Geographic Magazine* for January, 1923, had some beautiful plates of snow-stars. The process of making is really not difficult, after the folding in thirds is mastered. Follow the diagram carefully, and see what results you get. Let children practice folding circles of newspapers, to get the process in mind. Then let them make white tissue circles, which they can mark out with a can cover or a small saucer. The choicest snowflakes can be mounted on blue paper in their scrap books. A very simple transparency for a winter picture can be made by pasting baby-blue tissue paper on a pane of glass in the window. Then paste some of the snowflakes on it.

These are just a few of the many delightful possibilities resulting from work with the scissors. Remember that they are a tool for picture making, design making, patterns and processes in constructive occupations; so skill in cutting develops a good deal of general ability and resourcefulness.

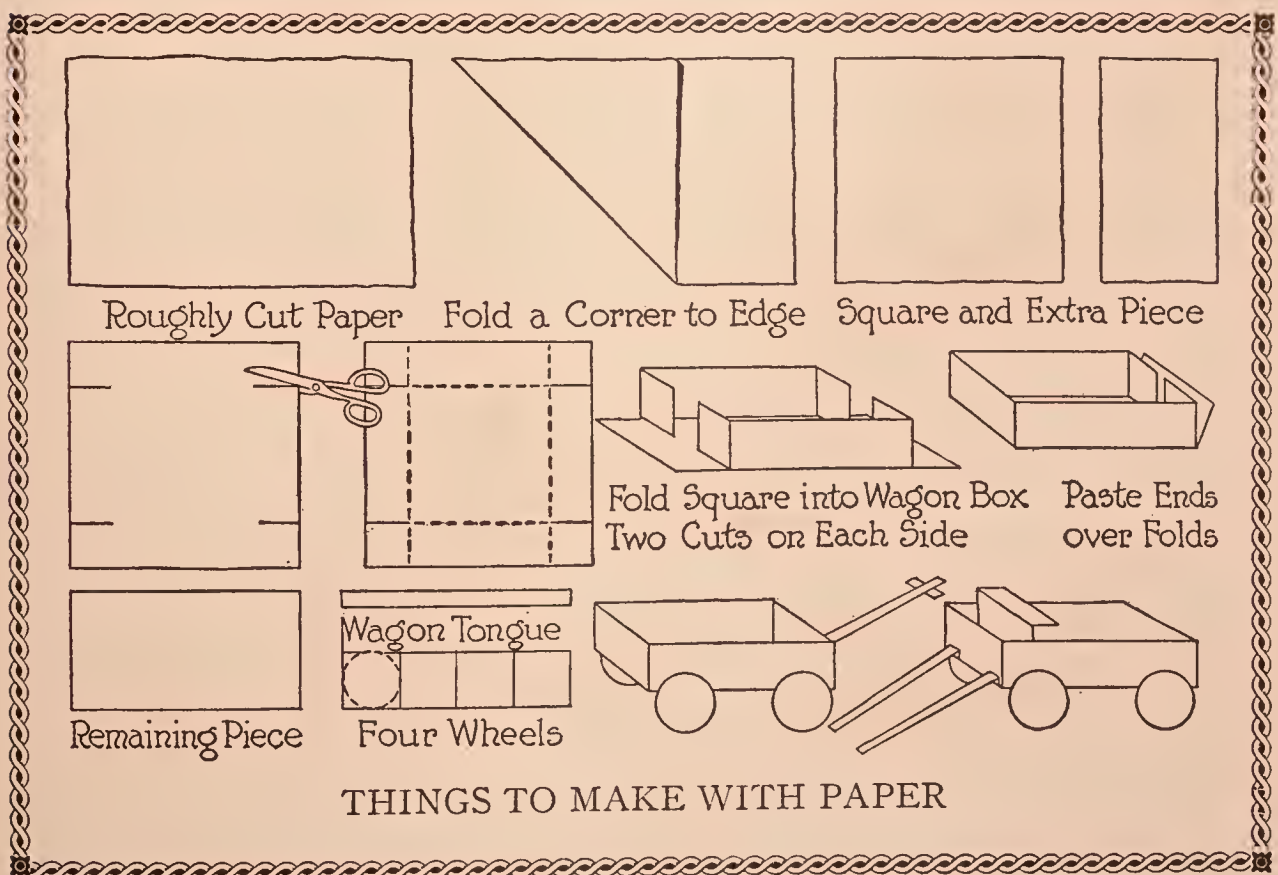
One illustration of folded-cutting construction, as shown on the next page, will serve for a variety of suggestions in paper construction.

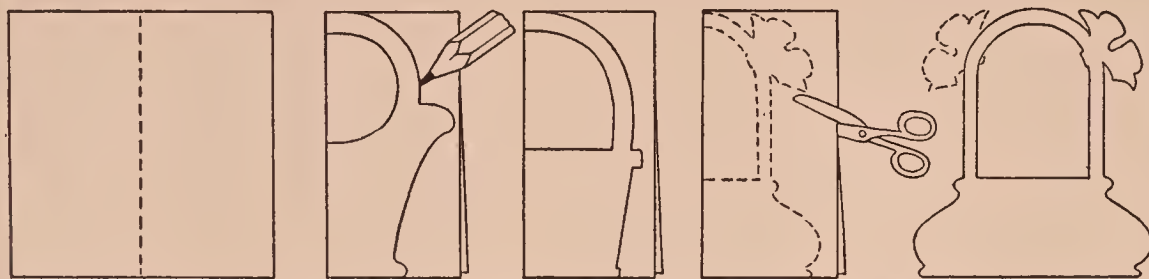
A WORD ON DESIGN

Design starts very simply in the love of rhythmic movement or repetitional sounds or arrangement, as is shown in the sound of pounding, or the stringing of beads, or the pasting of rows of objects. It includes love of "trim," or making things "pretty," whether or not the results would justify to our eyes what is done. This tendency shows very early, and we do not begin to make the use of it that we should. In all the handwork of which we have been speaking, chances for trim occur, suggestions for better arrangement can be made, and appreciation expressed for any attempts to make "pretty."

Esthetic appreciation is fed from two sources—impressions and expression. The surroundings are absorbed by the plastic, impressionable nature of the young child, and so we want him to live in an environment which includes charm of color and line and choice pictures and music; and we want him to hear and to see the best things of life.

On the other hand, he must begin to express his own esthetic feelings and to be the "artist in embryo" in all that he does, dramatically, musically, or with his hands. His dramatic and musical expression are much more genuinely





Paper Folded in Halves with Shapes of Large Baskets for Cutting



Draw the Back of the Dog along Folded Edge English Setter

Fruit Cut from Colored Paper



Houses Cut from Folded Paper

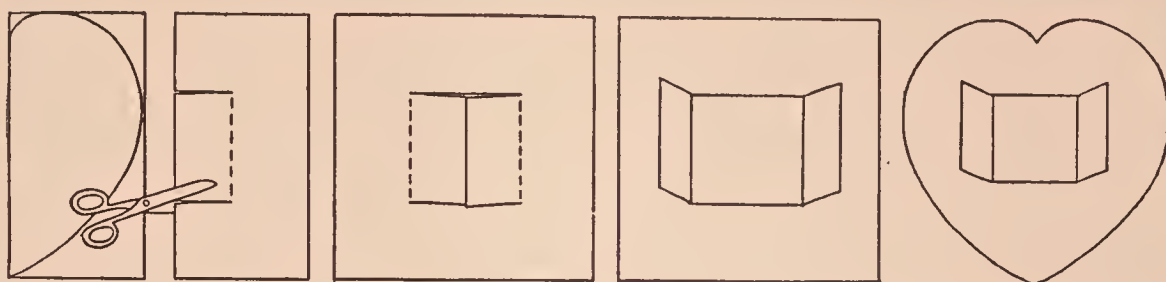
Several Trees Cut at One Time



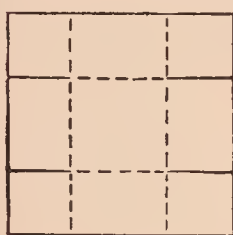
Pots of Flowers

Fruit and Leaves to Fill a Bowl or Large Basket

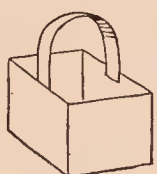
THESE REQUIRE MORE SKILL



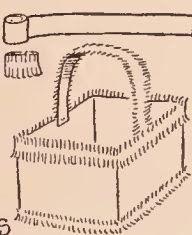
Hearts and "Windows" for Making Valentines to Be Cut on Double Fold



Make a Deep
Cut for Basket



Paste Sides
and Fasten
on Handle



Trim with
Fringe



For Tiny Tots To Make



Lap over
Ends

FOR SAINT VALENTINE'S DAY AND MAY DAY

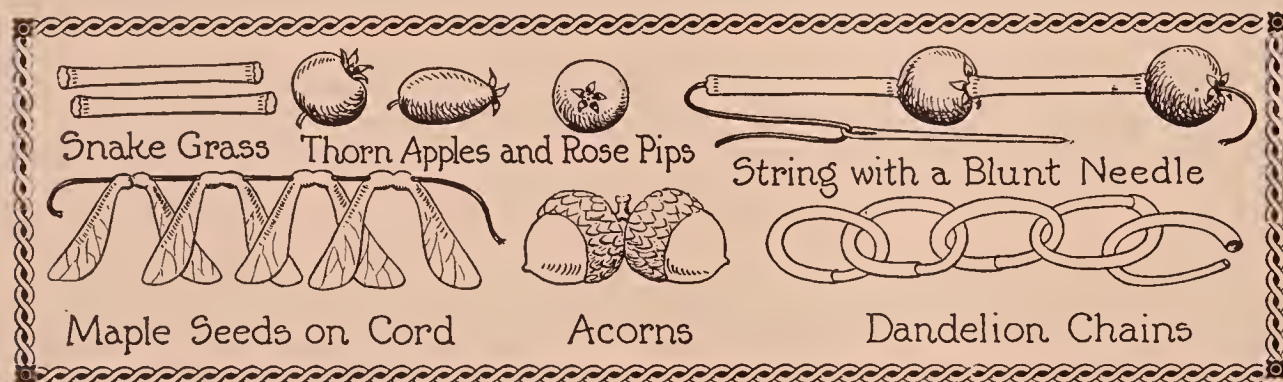
artistic than is his handwork or his drawing. Crudeness of expression is dominant here, so we must early learn to recognize artistic tendencies, and thus help him to give them further expression. Then he will start on his school career with the foundation without which his art work and his appreciation will be sadly limited.

Keep your small family busy when preparations for a picnic are pending and they are proverbially "under foot," with making picnic plates and napkins "pretty." You have little idea, until you try it, how simply and well children from five to seven can design when the space is regulated (as by the border of the plate) and the material has a good surface for working. Very attractive designs result simply from making color or lines with the crayons around the border. Little flowers repeated about the edge, or trees, or "apples," by their repetition make a pretty plate. Two children, busy at their little table or desk, can be happily engaged in this for a half hour at a time. Results are better, of course, if all during the winter they had been "trimming" the things they have been making, and have learned to use crayon or brush or scissors fairly well.

There are few things which children make to which a bit of color or

trim cannot be added. The present-day fashions are a continual stimulus to children's decorative instinct. They have aprons and dresses, with big, simple flower, fruit or animal cut-outs sewed on pocket or hem. They see hats trimmed with flat appliques of gay colors. They carry, or see mother carry, a shiny black bag with coarsely embroidered flowers or balls on it. Their own little bedroom may have a hand-painted set of furniture in it, with poster-like simplicity of design. Materials, designs and tones of color are simple and flat enough to be near-suggestions for their own type of decorative ability. A five-year-old showed with pride the yellow chicken on her pockets, and in every drawing she made her figures were trimmed with yellow chickens. Another child wore a dress to kindergarten with orange discs on it, from which dangled little black worsted balls. A six-year-old promptly made an orange-colored crepe dress for one of the dolls, with black worsted knots for trim.

A bag which had a couching design in long lines ending with gay-colored wooden balls was immediately reproduced with manila paper, and the same design crayoned on it. Why? Because such designs are simple enough to attract the attention of the small child and definite enough to inspire imitation. Children do not attempt to imitate Chinese embroidery, no matter how much they may love its colors, or love to touch it. It is too elaborate in design, too subtle in color to suggest imitation.



MAKING CHAINS

Stringing beads and chain making are very primitive and deep-seated tendencies. All children love to make chains, and a three-year-old will become quieted and absorbed with a shoestring and some big wooden beads. The easy control, the continued repetition of the movement of picking up the bead and pushing the metal end of the string, is very satisfying to a youngster.

The mother who puts coarse cord and big darning needles into her camp outfit is a wise mother. The hours of happy occupation which can be spent in

stringing rose-haws, seeds, hollow reeds or "snake-grass" and berries cannot be counted.

The materials are simple: Spools, buttons, large and small wooden beads, pop corn and cranberries for festive times, nature materials of all sorts collected on trips, shoestring, coarse cord, old window cords knotted at one end, packer's needles, bodkins and coarse darning needles complete the equipment, except for the containers.

Use cardboard cartons or oatmeal cartons which come with covers; these are durable and noiseless. They are practical, and they help to suggest classifying, keeping all the buttons in one, and so forth. Coffee cans are also very good for beads, spools and crayons. They can be painted as suggested under "Painting;" a row of these on a shelf of the child's cupboard is almost as fascinating as the jam closet!

The series of suggestions for chain making will be given in sequence from the easier kinds to the harder. They are all good occupation from time to time, and the later suggestions carry over into textile work calling for more permanent results.

Paper chains can be made from newspaper, wrapping paper, wall paper, and strips of various colors obtained from the printing office. The problem is simple, but your four-year-old has to be taught how to paste a "ring" by lapping over one end of the four-inch strip upon the other instead of sticking them together haphazard. Then he must slip the next strip through this ring and lap over its ends the same way. After he has mastered these two simple but quite particular movements, the rest of the occupation is his, and he will work as long as his love of repetition or his desire lasts to compete with another's "longest" chain.

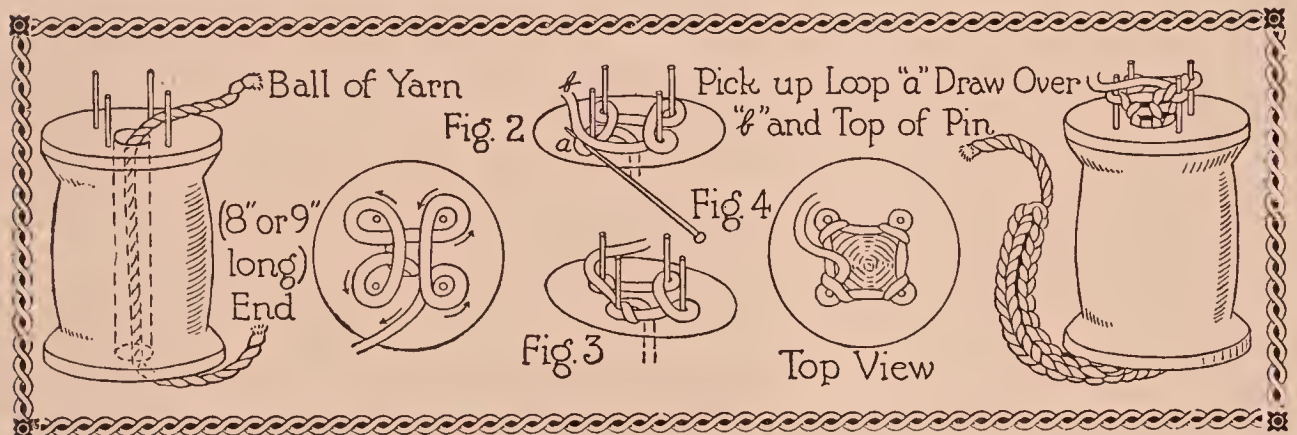
Five- and six-year-old children should learn to cut their own chain strips, measure lengths, and gradually plan or "design" their colors. An old wall paper book of samples makes fine material, and assists in planning many pretty designs. Where color is lacking, the crayon or the paint box comes in handy, and the much-painted sheet of paper may serve for good strips of red or blue or black to combine with the wall-paper strips.

For older children the interest in simple chain making is gone, except for outdoor work in making daisy and clover chains, or in making the pine-needle loops. Stringing and knotting pine cones and nuts require considerable precision and hand control, which is better work for older children.

Finger crocheting and spool knitting appeals to this same interest, though the processes are more complex and include interest in sewing and shaping, as well.

Finger Crocheting. Rags sewed as for rag carpets, or coarse cotton-roving

which may be ordered of school-supply houses, are good material for this work. The jute or wool-roving is too harsh for fingers. Finger crocheting is very much better than crocheting with a needle for children under seven. The movements are necessarily large, and the chain which results is coarse and big enough to be sewed into doll mats or caps without undue eye strain. The chain-crochet stitch has to be taught, of course. Sewing the strips of rags together is very good crude sewing which a six-year-old can do readily. Shaping into a circular mat or rug will need some guidance. It is quite possible to have a little design in this work by "hit-or-miss" pieces, or by sewing on a contrasting color for the outer edges of the rug. There are endless possibilities in this work. A seven-year-old could make a circular or elliptical rug crocheted of rags which would be large enough for the play corner.



Spool-knitting. This has always been a household accomplishment, and while there are a variety of "spool-knitters" on the market, the simple old-fashioned device is good enough. A big spool, four brads (headless nails) driven into the top and a strong bank pin or a hair pin are all that is necessary for machinery. The box of odds and ends in zephyrs will supply the material needed. Two generations ago our mothers could buy "shaded zephyrs" for this work, and it was indeed a joy to watch the dark rose, then the pink, then the pale rose, then the white come through the spool as we worked! The process of getting started is complicated, and the threading of the spool should be done by the adult until a six-year-old has become thoroughly skillful in doing the knitting. Any child of six will love to do this work, and some five-year-old children can do it very nicely. Like any of the textile occupations, spool-knitting should not be done for any length of time. A child becomes absorbed in it as he does in a book, and often must be asked to lay it aside and run outdoors, for otherwise it will become too sedentary an occupation.

What can be done with chains? If made of red or green or blue twine,

they make fine reins. Tiny bells can be sewed upon them for a Christmas present to four-year-old brother. Doll sets consisting of tam, muff and scarf can be made, and they are unusually attractive. Little circular mats and hats are very simple. Older children can sew on coarse stitch-designs of flowers, etc., with the colored wools.

All the sewing, both for finger-crocheting and spool-knitting, can be supervised as you do your own sewing, with the little son or daughter sitting at your side at work. Just a little patience and willingness to stop your work for the moment means much worth-while accomplishment for the little child.

Braiding. This art naturally belongs with this series and should be taught in the same way, with big, coarse materials, and used for the same purposes. Learning to braid sister's hair, and then one's own, is helped by practice in braiding for a rag rug, or a tea-mat.

DRESSMAKING

The child's traditional love of dress-up and self decoration only needs to be noted. It begins very early, and in its crudest form serves as a spur to his imaginative play. He loves to put on grandfather's "specs," and at once begins to look wise. A two-year-old loves to wear "daddy's" hat. All along the line dress-up appeals to deep-seated instincts, dramatic and decorative. A silver paper star makes a policeman out of five-year-old Ben, while a gilt crown makes a queen of Elizabeth. Grown-ups are quite dependent upon dress-up, for haven't we a proverb to the effect that "Clothes make the man"?

Children love to make head-dresses and hats. They can become very original and achieve some quite artistic results with strips and bands of crepe or tissue papers. If you help them to measure a cardboard strip around the forehead above the ears, and then fasten it with a brass fastener, they can do the rest. Streamers of color pasted all around give a spring festival effect to Jane's head-dress, while the feathers crayoned and cut out of paper and pasted upright on Johnnie's strip make an Indian of him. Incidentally, if he wishes an Indian blanket, you can spare him a flour-sack dish towel. He can take red, orange and black crayons and cover the cloth with crude color or even make rough designs for a border, and when he folds it about him he is a veritable chief.

Five-year-olds can make caps which fit close to their heads by folding back the open edges of a paper bag. It will need to be folded over several times. Then the small girls or boys can trim to their hearts' content with pompoms of paper or strips of "ribbon" to tie under their chins. This same device, but turned the other way up, makes a little bag which may have a knot or tassel of colored paper at the bottom and a stout cord sewed through the top so it can be carried.



Brad

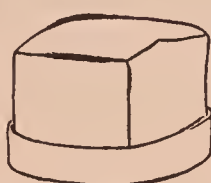
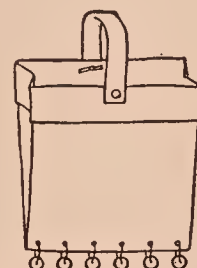
Make Short
Ones for Ends

Cardboard

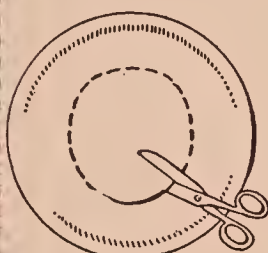
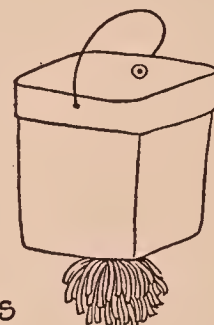


Colored Paper Head-dress "Plumes"

The "Feather" Fan

Trim with
Pompoms
or TasselsFold Back
Open Edge

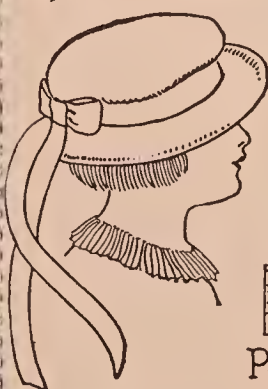
Shopping Bags



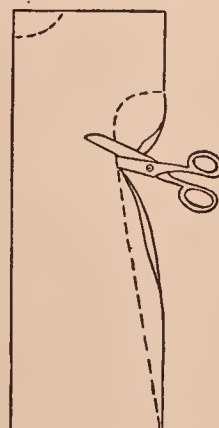
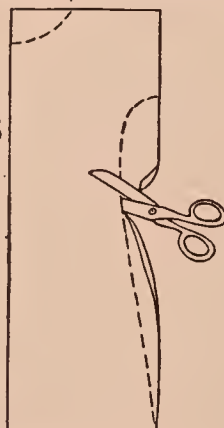
Paper Pie Plate



Tissue Paper Crowns Pasted underneath the Rims



Pansies



Patterns for Paper or Cloth

A Paper Apron

THE LITTLE GIRL MILLINER

White paper pie plates and colored tissue papers make quite a sufficient equipment for the five- and six-year-old girls' millinery shop. Children delight in the results which are possible with this material.

First the center is cut from the inside of the pie plate, a little at a time, until Miss Bessie's hat rim just fits over Miss Bessie's little head. Then she selects her favorite color of tissue paper and pushes it up through the center until it has quite a tam o'shanter effect, after which she pastes it in place and cuts off the tag ends underneath the hat. Or, an easier way for the five-year-old is to round off the corners of a square of tissue paper and paste down the edges all around the rim of the cardboard plate. Then streamers of tissue or little bunches pasted on to represent flowers add a decorative touch to the whole.

All sorts of really charming effects and much training in ingenuity and taste are possible with these summertime activities in dress-up. A little five-and-a-half-year-old girl made a blue and white hat as suggested above. While playing out in the open lot, she had a bright idea and came flying in to get her hat. When she returned with it, it had feathery foxtail grasses stuck around the rim against the deep blue of the tissue paper crown! The effect was lovely.

Boys love the traditional soldier cap, and should know how to make it very well from a newspaper. One half sheet of the ordinary-sized newspaper makes the average head size for a six-year-old. The sheet is folded in halves the short way of the page, then folded again through the middle to make a crease. Then it should be unfolded and laid on the table with the open edges towards you. Next fold according to diagram *a* and *b*.

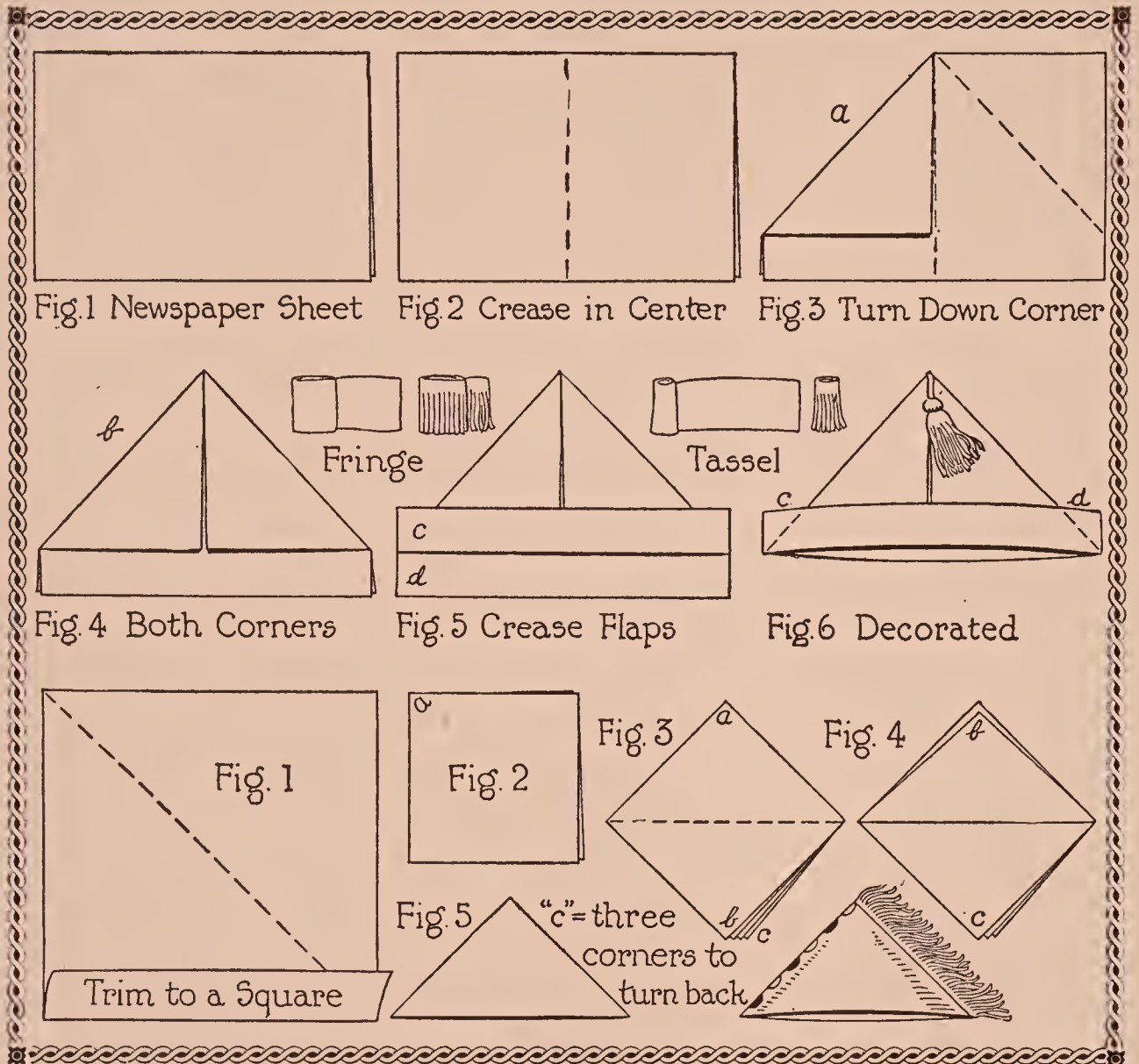
Lastly, paste the ends and decorate with tassels, with Dennison flag pasters or with stripes of red and blue.

There is a simpler fold which a four-year-old can accomplish with your help, if he has had a little experience in making book folds. Starting with the same-sized piece of newspaper folded in the newspaper fashion across the short distance, he should fold to make a book, i. e., middle of the oblong (see diagram for steps, Fig. 1, 2, 3, and 4.)

At 3 there will be four open corners marked. Fold the first corner *b* up to *a* and crease heavily. Then turn over and fold back the other three, *b* to the top of *a*. Then let the child decorate with slashes or fringes of color, as he chooses. A four-year-old will often snip pieces of red or blue and paste them all over his cap.

Uniforms or aprons can be made of wrapping paper or newspaper. Children who do this have learned to make doll pattern dresses which are made from a folded cutting like the diagram.

Strong brown or grey wrapping paper will make a dress or a big apron,



upon which the child can exercise quite a little originality in trimming. After she has made a paper one, the next step is to cut a pattern and make a cloth apron.

This is quite possible for the six- and seven-year-olds, as soft gingham or flowered cotton cloth can be used, and the pattern pinned on. After the apron is cut out, the edges need only to be folded back and pinned or ironed. Then blue, or rose, or yellow rickrack braid is sewed on. This is a painstaking job, but perfect stitches are not expected. They are of all sizes, irregular and childish looking, but they are strong enough to hold the braid on, and a pretty apron made by a proud little girl is the result.

A Warning about Sewing. The art of sewing is fascinating and valuable

for little girls from six years on, but it has to be regulated in a number of ways:

First: Only a little sewing should be attempted at one sitting, for the little girl's outdoor hours should not be curtailed by her interest in sewing.

Second: See that the sewing is done under good conditions of lighting and posture, to avoid eye strain.

Third: Very simple, large work should be stressed. The small, stamped outlining bits for young children are as pernicious for eye and hand as the old perforating and card-sewing of the kindergarten.

Fourth: Materials should be soft, easily managed, and attractive in color. The needle should be coarse, and soft wools should be used for thread.

Making doll dresses will be suggested in connection with doll making.

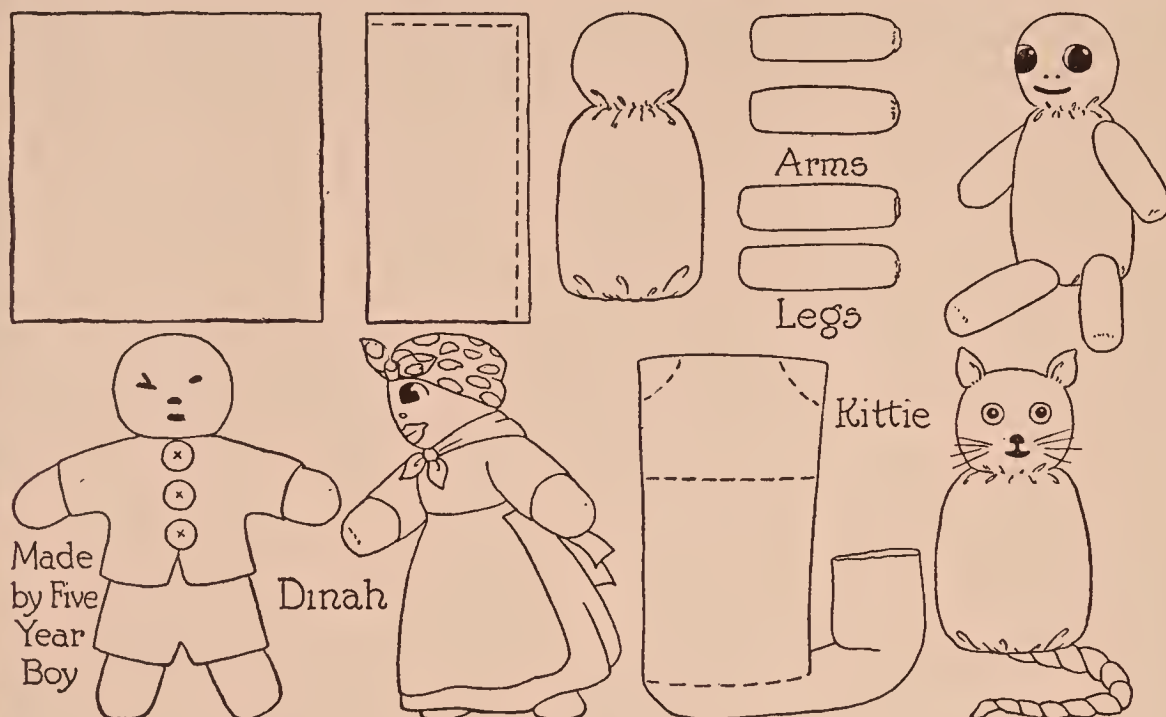
DOLL DRESSING AND MAKING

Of the buying and breaking of dolls there is no end, but we can do much more than we have done to help children in the making of their own dolls.

Baby begins very early to make a dolly out of a rolled up towel, or a bottle wrapped in a blanket, or a kitty who has consented to be "made over" into a doll-baby for the time being. The three-year-old learns to take off and put on the rag-doll's clothes, to button the big button on its jacket, and to put on its bonnet. By four she should be able to tie Raggedy Ann's apron strings and button up her shoes, which are signs of more skillful fingers. Presently the four-year-old begins to "sew" with mother, punching needle and thread back and forth through the soft cloth you supply her and making a variety of clothes for dolly, chiefly through the alchemy of her imagination. By five, however, she has really learned, through making a cape or an apron for dollie, or perhaps sewing together the leaves for her book, to make stitches of more or less even length. The making of bags, aprons and big-doll clothes continues up to the seventh and eighth year, when little girls have their "sewing bee" and sew for little dolls, piece quilts and the like. The five-year-old will learn to sew much better if she can be at least on the edge of such a sewing circle, for then she will eagerly imitate the older child's skill.

Aside from dressing or sewing for their dolls, children love to make dolls, though this is evidenced largely in the seven- to nine-year period, when making sets of paper dolls are all the fashion. But there are many interesting ways of making dolls at home, which even the youngest enjoy.

Clothespin Dolls. This is good experimental work for a younger child, because it means dressing, cutting, tying and sewing. Perhaps mother will make a face on the clothespin's head, and glue a little black or orange yarn on for hair, and dip its feet into the ink-bottle for booties. After that there are several ways to dress the doll:



VARIOUS KINDS OF DOLLS

First, snipping and tying,—let your littlest one snip a round hole (how he loves to do it!) right in the middle of a small square or circular piece of calico. Then slip it over the doll's head, and tie a sash of yarn or ribbon or a strip of cloth around its middle.

Second, snipping and sewing sash on. Cut the same neck hole, and then give the child a needle threaded with a knotted piece of yarn. Let her sew around the hole a little way down, any kind of big stitches, and pull out her needle. This leaves a gathering string which will tie the dress around clothespin dollie.

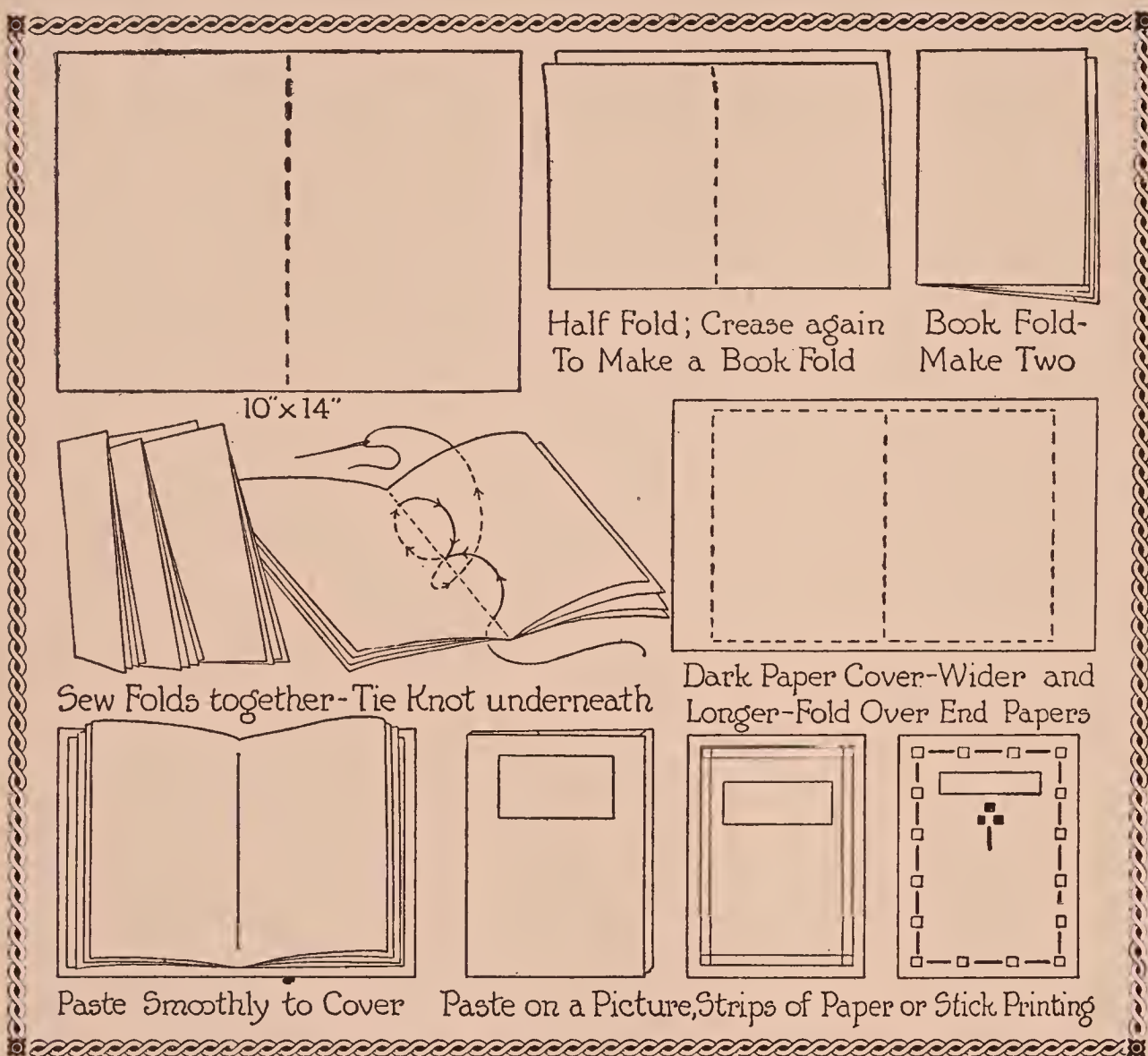
Third, gathering neck and waistlines. This needs an oblong piece of cloth, and the child learns to make the running stitch at the neck and an inch or two below. These gathered up and tied behind make a good dress. Clipping or fringing the bottom of the dress may be done, and a cape or shawl added.

The five-year-old can make endless variations of this kind of doll, and it is of good size to use with many of her smaller toys and furniture.

Rag-doll. Supply soft cotton cloth for this, preferably old underwear, linen, or stockings, white, brown or black. For head and body use a six- or eight-inch square of the goods, and double it. Two pins will hold it, while the little girl sews a good seam around two sides of the oblong, leaving an end open for stuffing with cotton. After the body is stuffed, gather or tie in the neck, making the head and trunk. Sew up smaller oblongs for the fat, short legs and the arms, stuffing with cotton and then fastening to the body. The face and hair may be painted on. Children love to "practice" on a piece of paper until they have made a good face, rather than to let the grown-up do it, but, of course, it is a very crude result when they do the painting. This doll gives opportunity for much simple planning and dressing. Kimono-patterned dresses and aprons can be easily made, with delightful little pockets and belts; some little girls are able to make rompers for a doll of this size. The preceding picture shows some of the comical but thoroughly childlike results of rag-doll making in kindergarten.

An old black or grey silk stocking will make a wonderful kittie, and six-year-old children can make one easily for baby brother or sister. The top of the stocking is sewed across, and the foot is cut off. The two upper corners are tied and sewed for ears. Then cotton is stuffed into the stocking until a suitable length is filled. The neck is then tied in and sewed tight, and the body is tied at the bottom. Then all the remaining stocking is wrapped tight in sections, with the black or grey thread to make the long tail. Two buttons are sewed on for eyes. If the kittie needs whiskers, you will probably have to make them (see diagram). It makes a soft and "hugable" toy for the littlest one.

Paper-doll making and dressing, as a whole, belong to the later age of childhood, but will be suggested under the heading "Cutting."



MAKING BOOKS

There is almost no child of any age who does not, at some time or other, love to make books. Book-making in very simple forms for home work is an occupation of sustained interest and practical value. It gives hours of pleasure for the shut-in days. Also, books have an added "collecting" interest for the older children, and for the littlest ones the love of pasting and arranging.

Materials for scrap and picture books may be paper cambric or heavy wrapping paper. Both materials may be stitched together at the back on the machine, or sewed by the child himself with heavy yarn. A very good, grey, light-weight paper scrapbook is on the market also for the older child's classified pictures.

Pictures are easily obtained from fashion plates and books, the little cards and advertisements which come with breakfast foods, the better pictures cut from magazines, and from children's worn-out books and primers. Save all suitable post cards, also. Much of this work can be done by the children, and of course that gives it greater value.

For the Youngest Children. Again we see manipulation interests dominant, slapping and pasting down hard the pictures given them to paste. For this first work have a page of heavy wrapping paper cut 10" x 14", and let the four-year-old just paste all over it. There will be little arrangement, and when you see any pasting in rows, or four corners and center, rejoice that the rhythmic or designing sense has been awakened. Save any fairly good pages, and when he has made two or three, fasten together with overhand sewing. This gives him a "book" and a satisfied feeling that he has achieved something. Even the littlest ones need some emphasis on the results they are getting, so that they may gradually realize that the end to be accomplished is worthy.

Also, a four-year-old loves to make the "book fold," folding double a square or oblong piece of paper. Several of these pinned together make a little book which he can fill up with pasted pictures or scribble on, as he chooses.

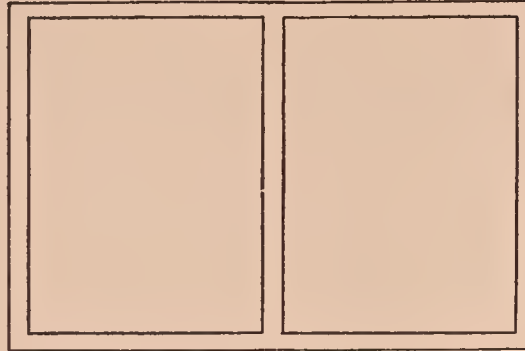
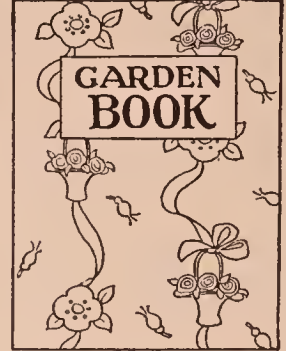
The five-year-old will make many such little books and can learn to pin together, to sew through backs and tie, or to sew over and over. Making one's very own book puts an added value on it; so it is best done with wrapping papers, and there is no wastefulness involved.

A child of this age can begin to make special books with the picture name on the cover, or "daddy" can print the title on. A "Family" picture book is very fascinating, for the whole real family can become involved in saving pictures of babies and ladies and boys and fathers to put in it. It means, also, a little problem in selecting and choosing, for the child himself will search for the pictures he needs in the magazines and catalogs which are his to cut up. A five-year-old boy can make a "soldier" scrap book of long papers 6" x 12" or thereabouts. He can paste his soldier pictures, perhaps cut from a worn-out picture book, in a row and gather together other pictures which tell about soldiers, flags, tents, drums and the like. A "Bird" book is much fun to make, and a "Book of Autos," also. Just a scrapbook with no attempt at classification, but with emphasis on neatness, ability to paste carefully, and good arrangement is very satisfactory work all through this period.

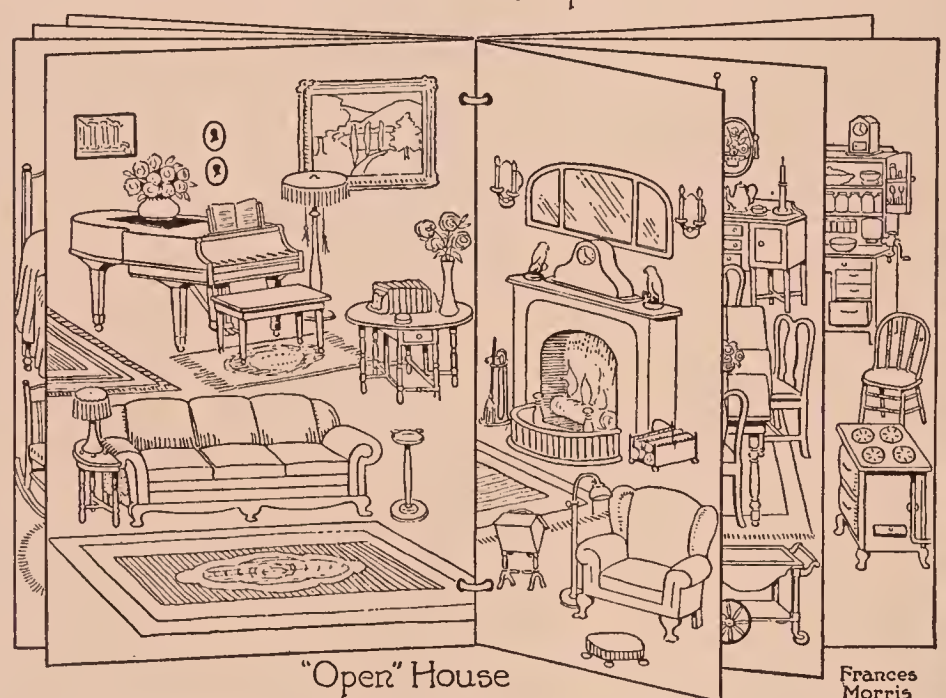
Worn-out story-picture books can be used to advantage by the six-year-old children. By cutting up the pictures and remounting in a suitable-sized booklet of cloth or heavy paper, they will be as great a source of pleasure as before. "Peter Rabbit" and "Black Sambo" are always getting worn out, and as the



Cover for Book House

Paste Cardboard to Cover $\frac{1}{2}$ " Apart

Garden Book Cover

Run Cord
through Leaves

"Open" House

Frances
Morris

GARDEN BOOK AND BOOK HOUSE

reading matter is known by heart, just the pictures pasted in sequence make a new book. Old primers and readers can be used. The children who have begun to print and write can label with a little help each page of the story. It may be well to cut out in oblongs some of the reading matter of old books and mount under the pictures.

A very delightful "Garden Book" can be made with mother's help and direction. Get a square of cretonne or gay-flowered cotton cloth, lay it flat on the table, and then paste on two oblong pieces of wrapping paper or cardboard, so as to leave a margin of cloth all around and a half-inch strip through the middle

or back. These will make limp covers for the "Garden Book." Buy Jessie Wilcox Smith's "Mistress Mary, Quite Contrary" colored picture for the first page. Have your seven-year-old cut big letters, either free-hand as is done in school or picked out of newspaper headlines, which say "Garden Book," and paste them neatly on with his or little sister's initials. The inner leaves may be of good quality construction paper, in warm grey or green, whichever harmonizes with the cover cloth. They can be sewed to the strip of cloth at the back.

The range of picture interests possible under this heading offers a good training in selection and discrimination. With a little guiding and help in deciding which are the best pictures, the child can make a really beautiful book. The boy's book may be "The Farm," with its varied interests, while the girl of this age will put in flowers, potted plants, spring, summer and autumn garden pictures and child activities of work in the garden, with tools and the like. Animal and circus books offer many incentives to collecting, classifying and arranging which should be emphasized at this period.

For a bit of particular work for the six- and seven-year-old girl, the "Book House," explained in these pages offers many fascinating problems. If you are willing to help a little with suggestions and in keeping up the standard of mounting and arranging, both the work itself and the results will be gratifying.

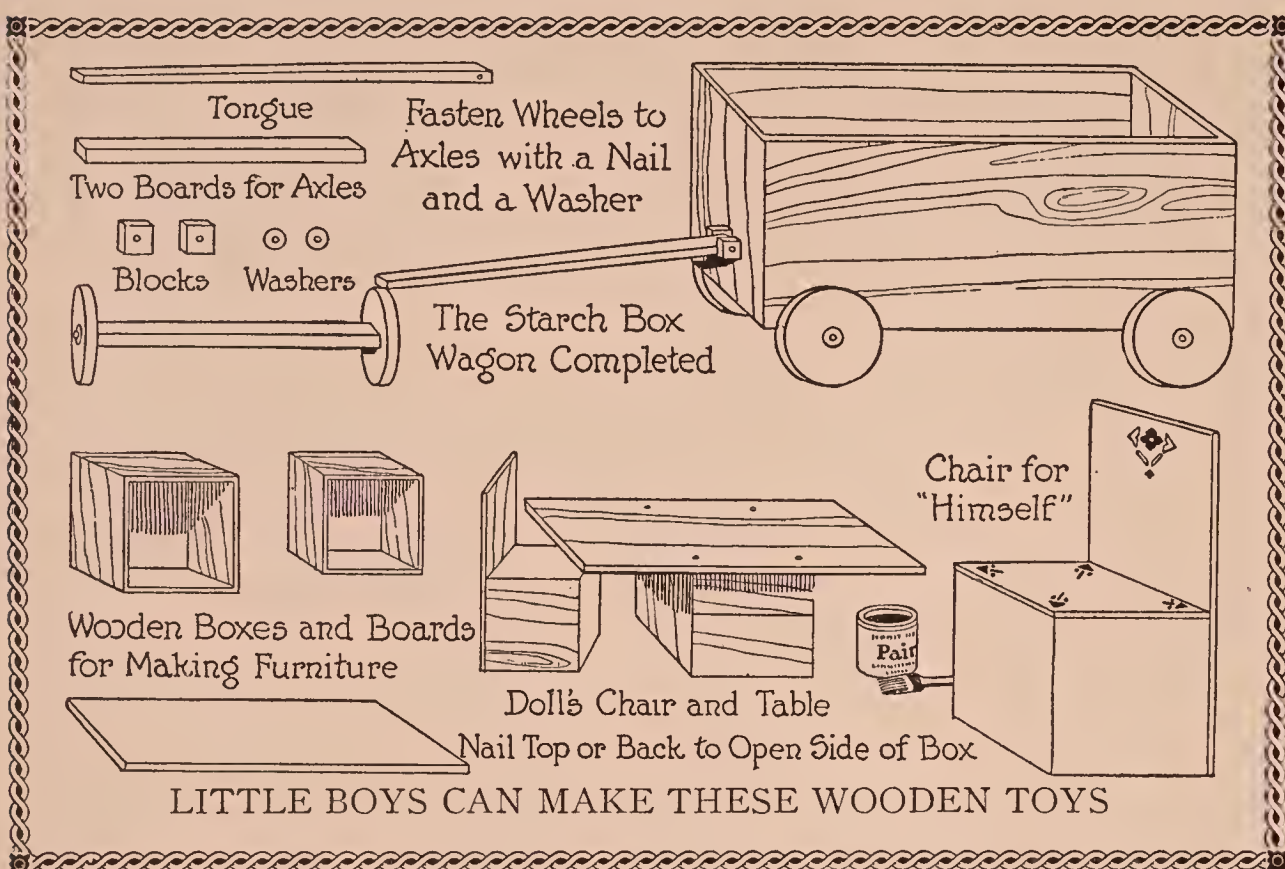
First decide upon the size of the construction papers which are to be used. For each "room" a 9" x 12" size is good. The first page should be a picture of a house, the prettiest one your little girl can find. Several of our household magazines carry advertisements which are beautiful in coloring and design.

The next sheets may be for "the family who live in the house." This may be a group picture of the family or separate cut-outs of the whole family from fashion plates.

Following this, the number of pages for the various rooms will be determined by the little girl's degree of interest in a fairly long-sustained "project." There may be as many as ten rooms, or as few as four. First list (each room occupying a page of the book) is as follows: the hall; sun parlor; living room; dining room; kitchen; bedroom; nursery; playroom; bathroom; furnace room or cellar. A shorter list may be: living room; dining room; kitchen and bedroom or nursery. Catalogs, backs of magazines, and store advertisements are the source of supply for the pictures.

When finished, two holes can be punched at the left margin of each picture and all the pages tied together loosely. This loose-leaf arrangement enables the child to stand the book up so that it may open like a screen, and paper dolls may play in the kitchen or on the sun porch.

There are many values in this particular book, aside from the manual skill

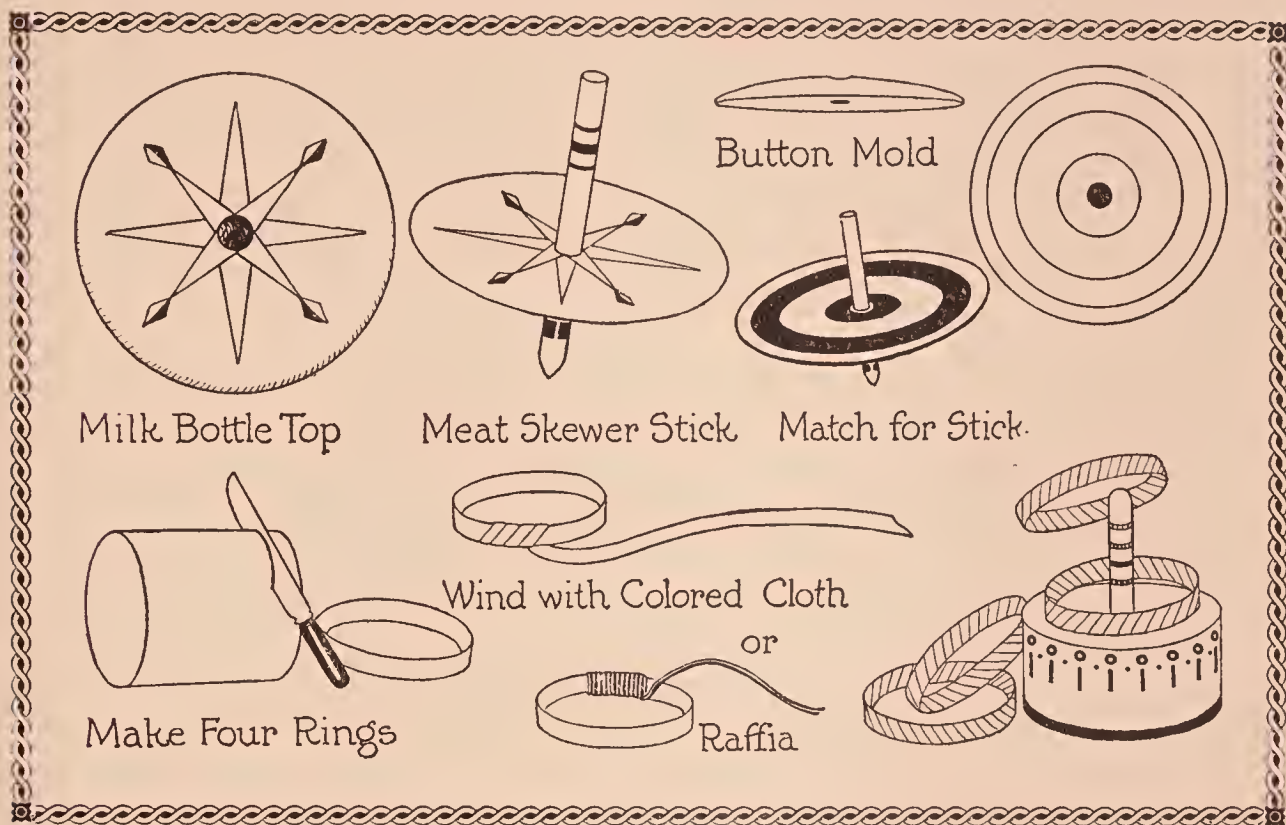


attained. To carry out a unit of work in an organized fashion is a thought-provoking situation. Arranging the kinds of furniture which go together is a training in association and sense of suitability which the child of six is beginning to need. Witness the cheerful way in which a five-year-old will put the kitchen stove in the parlor, and mix up all the rest of the furniture in a playhouse!

At six he should begin to cultivate a sense of orderliness—the right things in the right place. This is also a matter of esthetic feeling, and this little "Book House" may be very artistic in color-scheme, careful cutting and arrangement and daintiness of workmanship. It does not need to be done all at once. That is the danger which we adults fall into—of forcing children beyond a native interest and power too fast and too far. A good flat box to keep the materials in, with some of father's big envelopes in which to save cut-out pictures, makes provision for keeping such a project for pick-up work, exactly as we grownups keep a bit of sewing or embroidery in a bag ready to work upon an hour here and there until it is finished.

MAKING TOYS

Naturally enough, children's constructive interests center around their play needs and purposes. This becomes increasingly evident as their ability to plan



and execute their various projects increases. Boys of eight, nine and ten spend hours in getting their circus performances ready, in making costumes, arranging stage-settings and so on. Little girls are busy at work in the playhouse making bedding, curtains and doll clothes. Yet this constructive activity reaches a further purpose, for it is pre-practice play, play-work which is helping to make them more efficient, getting them ready to do the same things on a larger scale in their later life.

Toys which they make themselves have an added worth to them, for they train in ingenuity and in ability to wrest what they need out of the materials about them. The "poor little rich girl," smothered in toys, can never know the joy of creativity which the child of the poor knows, who has made for himself a pair of skis out of two barrel-staves and the kid tops of an old pair of shoes! An invention of that sort enabled five-year-old Wallace to slide down his own snow hill with the best of them.

How to Make a Top. Material: A large button mold, or milk bottle top, or three-inch cardboard disc. Color gaily with several of the Crayonex colors. Use a thick match or a meat skewer, or the stick from an "all-day sucker." Point the end of the stick and drive it through the middle of the disc. This makes a very serviceable top.

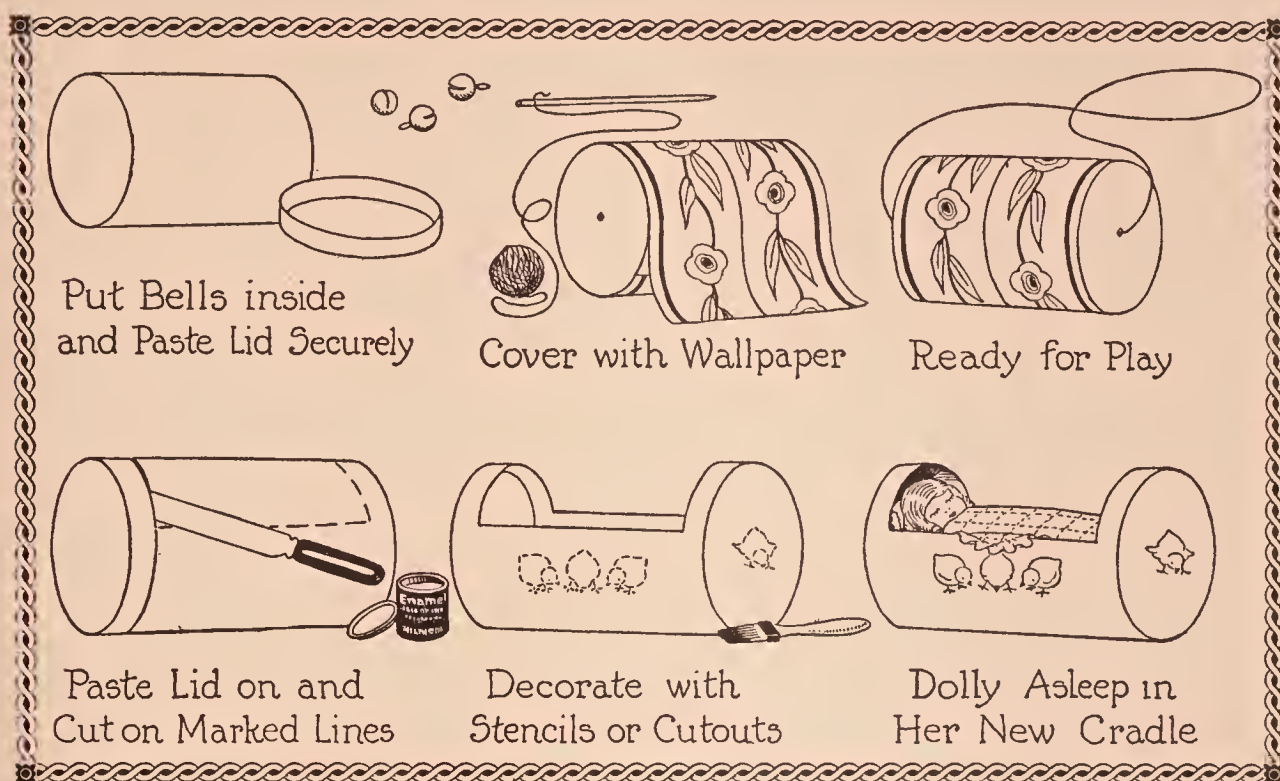
How to Make a Game. Ring-toss. Materials: a cylindrical breakfast-



food box, raffia or strips of cloth to wind the rings, cardboard coffee container, and a stick of wood about the size of a flag stick. Cover the coffee can with colored paper or enamel it; paint the stick green, and drive it into a hole in the center of the can. Saw the breakfast-food box into $\frac{3}{4}$ -inch sections. Wrap each one with a different colored strip of raffia or rag. Make four or six rings to toss.

How to Make a Drum. Here is another use for the cardboard coffee can, with clothespins, colored paper, and cord for other material. Paste grey or tan paper around the drum, and red or orange strips criss-cross. Almost any design will be effective for the drum part. Take a good length of thick cord or cotton roving and tie it to a metal skewer, in place of a needle, and punch through the can about an inch from the edge, pulling the thread through on the stick. Then tie the ends the right length for the drummer's neck. Two clothespins or dowel-sticks complete a very good drum. The tin coffee can may be used, and holes may be punched with a nail through which to thread the cord, but it is a noisier toy, and the "boom" of the cardboard one is very realistic.

How to Make a Table Croquet Set. Material: Four small spools, two tall, slender spools, four marbles of different colors, eighteen corks (the larger the better) nine long wire hairpins and four long thin nails. Bend a hairpin into shape for an arch, and drive each end into a cork. Make nine of these. Make



mallets by driving nails into the middle of the cylinders of the spools. Color the ends of the mallet to match the marbles which are the croquet balls. Set up the two slender spools for the posts. These may have bands of the four colors, put on with crayons. This is a good problem for the six- to seven-year-old boy.

How to Make a Roly-Poly for Baby Sister. Material: An oatmeal box, wall paper or any bright colored paper, bells to put inside, a yard of cotton-roving or stout cord. Punch holes in the cover-ends and fasten the string in for pulling. Put bells inside, and place the cover on. Then cover or decorate with bright colored paper. This little toy can be pulled or rolled across the floor.

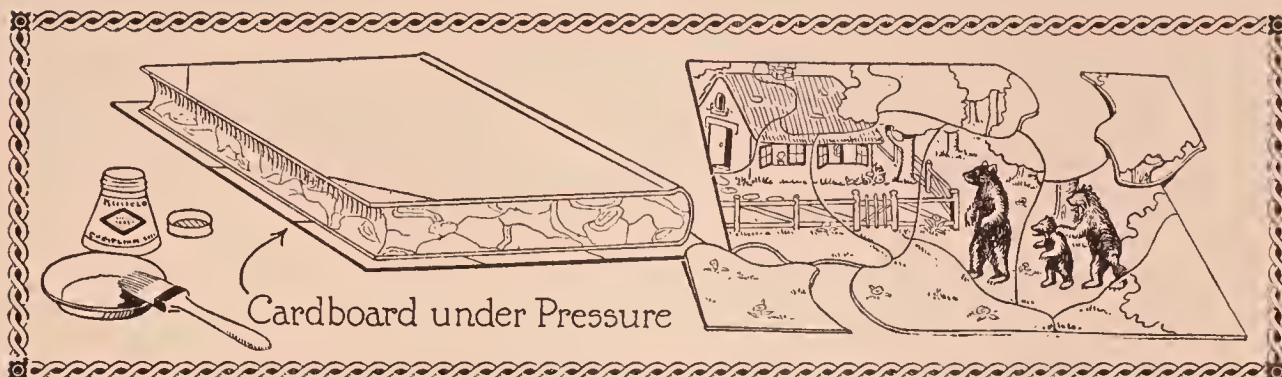
How to Make a Doll Cradle. Material: A large sized breakfast food box and enamel or house paint. Put cover on tightly with a little paste, if necessary. Then mark with a black crayon a line one inch from each end, but only a third of the way around the end. This is to be cut out so as to make the circular ends for the head and foot of the cradle. Cut lengthwise for the sides of the cradle. This is a little problem in careful drawing and cutting, but the little rocking cradle which results is a very real toy. Little cut-outs or pictures of rabbits, chickens or flowers may be pasted at the head and foot, or on the sides after it has been painted cream, rose or grey. Bedding, coverlets and pillows may be an additional problem in sewing for the six-year-old.



How to Make a Doll Bed. Material: A cigar box, four spools, enamel or house paint, and some glue. (This is harder to use, but children who have used paste skillfully can manage it.) First, the cover is taken off and nailed or glued to one end for the headboard. Then the spools are glued to the four corners. Finally, the bed may be painted and decorated, as suggested for the cradle.

How to Make a Sewing Box. Six-year-old sister can make a very dainty sewing box of a cigar box which has been soaked in warm soapy water to remove the odor. Then paint the box and cover, inside and out, using the child's favorite color. After it is dry, flowers or figures may be cut from cretonne and pasted on top of the cover and around the sides of the box. This makes a very serviceable box for all her own pairs of scissors, balls of yarn, and bits of ribbon and cloth.

Furniture and wagons of all kinds and sizes may be made from match boxes, writing paper boxes, candy and shoe boxes. Learning to cut and punch holes, use brass fasteners, tie with cord and bend wire into shape and skillfully handle varieties of material, makes the child very ingenious and able to adapt what he has to his play uses. Learning to see possibilities in the ordinarily discarded materials about him is a valuable result of constructive work, and is thought



provoking. A child who has this quality of resourcefulness is an asset in the social world.

How to Make Puzzle Pictures. Materials: Backs of tablets or strawboard and pictures. Paste a picture on cardboard with the stencil brush so that the paste is evenly distributed. Then put the cardboard under pressure to dry. When five- to six-year-old children make these, they just cut them up any way, into five or six pieces. The six- and seven-year-olds may take a ruler and draw sections of various shapes and sizes over the backs of the puzzle card, and then cut up the pieces. A big envelope should be made or borrowed from "daddy's" desk to keep the pieces in. A picture or printing on the envelope tells what the puzzle is. This is a good use to make of pages from torn picture books—for instance, a big animal page, an engine, or even a "scenery picture," if the drawing is big and simple, and includes an animal or a child to give it interest.

The number of toys which children from five to seven can make with the least possible help and the greatest possible enjoyment is almost infinite. If the child gets the idea and mother has also a resourceful and ingenious "suggestion," there is little that he can not make in some simple form or other to complement his play and enlarge his capacity for enjoying life.

Nature Materials. On this day of long motor trips, there are many opportunities for children to gather the beautiful out-door things—the leaves, berries, nuts, acorns, seeds and pods which they so love to collect. Try to have in the car a few newspapers and a basket or flat box for the children's treasures. When they pick simple leaves, as they often do, they can be slipped into the folds of the newspaper and are then ready to use when the children get home. The basket will take care of all sorts of materials for stringing. The added interest of use later on gives another incentive to the wholesome exercises involved in "collecting" and running about, while the picnic dinner is being prepared.

Too much stress cannot be put upon the need for outdoor activity. Doll dressing and tea parties under the trees; the immemorial circus performance in

the back yard; making wreaths, aprons and caps of fall leaves—all of these and many more “handwork” occupations may occur under blue skies, and out where winds blow. A safe rule to follow in these days of over-heated houses and closed cars is, “Never have any play or work indoors which can be done out-of-doors.”

OBJECTIVES AND RESULTS.

The end and aim of all education is character. That is an accepted standard to-day, however lax we are in living up to it in educational practice. Character expresses itself in attitudes and in conduct. The grown-up must be of value to himself and of service to society. A large part of the young child's life is concerned with the organization of behavior, with learning to do, learning to be, learning to adjust himself to the demands of the society into which he is born.

Industry and the habit of industry is a foundation stone.

Self-employment, or ability to “amuse one's self.” This is a great asset in human character, for later on it means resourcefulness, or good use of leisure time. The child who can and does find employment for himself is never idle-minded, that greatest of dangers to the mental and moral health of youth. Your child is less care, less responsibility to you, more to be depended upon, when you can count on his being continually occupied. Self-employment, self-control and self-direction are closely allied.

Perseverance and persistence are developed through handwork, perhaps because the end to be struggled for is concrete, easy to see, easy to hold in mind. Possibly, also, they have been set up as standards both at home and at school, so that “always finish what you have begun” becomes a slogan. When we remember that the lengthening of the span of interest and effort is a sign of growing intelligence, we will not fail to work for this objective.

Executive ability is a tremendous asset in society, and is emphasized in the constant adaptation, shaping and making which handwork calls forth. Ability to see what to do, how to shape materials, and the means by which these things are done are constant factors even in the tiniest efforts, and we somehow expect people who have learned to work with their hands to have greater ability in adapting and shaping the business or the demands of life. Witness the son who must “work his way up” by means of manual labor, the actual doing, in order to be adequately trained to his father's executive job.

Purposefulness versus aimlessness. This contrast points out the keynote to worthy conduct. Handwork, the making of the things which meet childish needs, even if only “tickets” to his circus performance in the barn, is a constant training in purpose. Problems arise in the child's mind which grow out of his plans, and

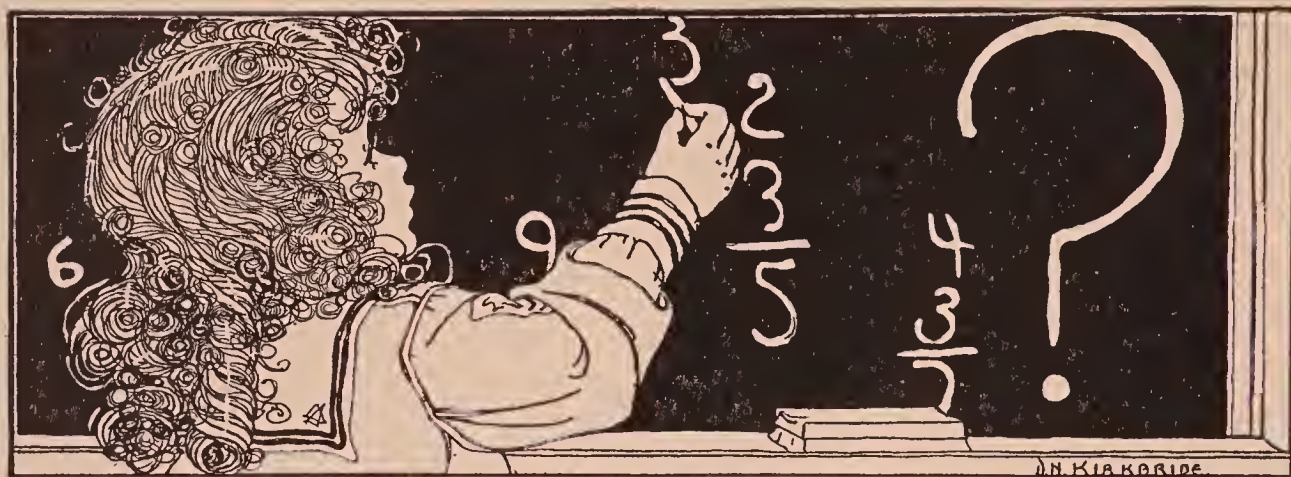
it is a wise parent who refuses to solve them for his child, but who works with him, or sets him on the track to discover for himself the answers. Increased willingness to stay longer on the job, to work harder to attain ends, are always in evidence where there is a real purpose, a real interest. Perhaps the chief effect of such handwork, or attitudes about handwork, which we have been discussing, is the gain made in whole-hearted, purposeful activity.

A great contentment and sense of poise is one of the emotional reactions of free, happy, purposeful work. "Give, oh, give me the man who sings at his work," says Carlyle. Children trained to work with their hands and to love to do it are the happiest of all children. And the modern biological-psychologist says that joy in work is an essential to natural, healthy growth, because where there is joy there is no worry, and therefore no strains or blights to check full, vigorous development.

Aesthetic training. Training of this kind is so great a factor in life and yet so indirect that it is hardly possible to suggest all the points. The growing consciousness of being able to achieve the useful and the beautiful (in intent if not in actuality) is as soul-satisfying to the little child in degree as it is to the artist or poet. Sense of color, form and proportion exercise a continual influence upon taste. Note the illustrations of this under the discussion of design. Skill to do well and ever better awakens both standards and appreciation. The little girl, who from making quaint little doll dresses with wooly stitches of trimming on them has learned to make an apron or play-slip for herself and to put "designs" upon them, is going to love to make her own dresses and to appreciate both the art and the usefulness of dressmaking.

Value of companionship. The need for companions in work increases with the age of the child. Where the four-year-old is quite content to play by himself or near another child, the six- and seven-year-old seldom wishes to work alone. Little girls begin to make paper dolls together, or have a little sewing circle; boys build their huts and erect their dams in trios and quartets. The give-and-take of shared social life is very significant, so the "come over and play" call has a growing value. Imitation raises the standard of work done, and the suggestions and help, even the quarrels and criticisms of a group, play their part in training these little children of to-day to learn their parts for the citizenship of to-morrow.

To go back to where we began: The young child is learning all the while. His learning is active, and so handwork makes a large measure of provision for the use of leisure time for work indoors and out, for happy, wholesome occupation of mind and heart and body.



When Shall We Teach the "Three R's"

MINNETTA S. LEONARD.

IF by the "three R's" is meant formal studies in "readin', 'ritin', and 'rithmetic," as given in the school, the best authorities answer, for reading, rarely before six years of age; for writing, on paper, not before seven; and for number work not until seven or later. But if one means the time for beginning to give the preparation for understanding these, the pouring in of the experiences needed as a background for them, and the stimulating of a great desire to read, write and do number work, these same educators answer that the proper time is whenever by his questions the child shows he is working on some special problem in these—when the child himself starts the "lesson."

Let us explain the difference. In the study of the development of arithmetic, language and writing in the race, we find that men, in their various activities, stumbled upon certain facts which were useful to them. For a long time these facts were used in a haphazard way. Gradually, however, for the sake of convenience in recalling them quickly and accurately and of passing them on to others, men organized these into a definite system for study. Just so the little child uses certain numbers; for example, in his play, he measures lengths of paper and boards; divides apples or a number of marbles among several playmates, or selects enough plates to set a table for a certain number of dollies.

At first he does it all in a haphazard way; he chooses too many plates and has to put some away, or gets too few and has to go for more. He may have the same problem over and over again, making the same mistakes at first, and gradually eliminating them until he succeeds in doing the thing right the first time. His problems are of all sorts—combinations of two at one time, or six or eight the next. This requires many, many repetitions of each of these experiences over a long

period of time before the child learns to respond quickly and accurately to these as they arise.

After repeated experiment and waste of energy there comes a time when he will recognize of his own accord that he may help himself to avoid trouble by drill and by writing the combinations down for future reference. He then becomes willing and eager to help himself in this way. Arithmetic at that point becomes a reasonable study, a service to him which he recognizes, and so, most likely, a pleasure.

In just this way all other studies become of recognized value, if allowed to grow from the child's own experiences and needs. It is because the parents and the schools arbitrarily say, "John is six years old now, therefore he must begin to learn reading, writing, and numbers," and then put him through these studies with no regard either to his mental age (that is, the stage of mind development which determines his grasp of these subjects) or to the experiences life has given him, necessary to make these studies sensible to him.

Legitimate lessons in the "three R's," then, are not easily seen as such. They are the filling in of the background of experience for these formal studies later.

WHAT HAPPENS IF WE TEACH THEM TOO SOON?

Schools are coming to recognize that the mental age and the chronological age (age counted by calendar years) are not the same. It is realized that some children are six mentally at or near the fifth birthday, and others not until their seventh or later. Tests are being given in many schools to determine the mental ages, and children's entrance and promotion in school are determined by the mental age. It is to be hoped that this will be true before long in every school. All the desire of the ambitious parent, all the urging, scolding or rewards of teachers cannot bring true growth and grasp in these subjects if the child's mind is not ready to absorb these studies for itself. They may succeed in getting the child through his grade into the next with only partial understanding of his work, handicapped to begin the work of the next grade, and likely from now on to be only a mediocre student. Or, as quite often happens, they may cause the child to fail to pass. Because he has been asked to struggle over a subject senseless to him and has failed, he has built up around that subject an eternal distaste and disgust for it, making the study harder next time. It has meant social humiliation. It often goes further; it gives the child a conception of himself as a failure, and this is a real disaster to any child.

But what should be done if the child of five has a mental age of six? You would begin to teach these subjects earlier, would you not? Personally I would not. I would meet (as shall be shown later) all questions which show interest in

any subject or would give the child a chance to answer them for himself, in order to insure at this time whatever good might come out of this interest; but I should see to it that as soon as his immediate problem was solved his attention should be directed to other interests more in keeping with his age. I have satisfied myself by experiments that some children may easily be taught to read at three years. But the question should never be, however, at what age *can* we teach the child, but at what age *should* we teach him.

Here are reasons for my answer. Whatever time a child gives to one activity means that much taken from some other. The years under six are most valuable years for the getting of all sorts of vital experiences which will enrich the whole later life. The school days come for most children so much too soon for the getting of these background experiences that it seems too bad to rob the child of any of his time by formal studies under six, or sometimes seven.

The child under six should be saturating himself with first-hand knowledge of nature, as Miss Shaw shows in her article. Getting vital experiences from puppy dogs and kittens, wind, water, birds and plants is infinitely more valuable to him than all he can read in books about these for years to come. Too often the ability to read such fascinating works as the Burgess bird books takes away, as it did in the case of a little girl I know, from time spent in watching Peter Rabbit and listening to Jenny Wren, to the book itself, where she gets only second-hand knowledge.

This is the period valuable for the building up of a fine, sturdy, healthy body. Time spent on books means that just so much of the child's time must be curtailed for play in the homes, in the gymnasium, or in out-of-door activities.

Time spent in books also means so much taken away from handwork, which should be at this period, as Miss Barbour shows in her article, the medium of child expression. In the crowding of other interests later, the child may miss the pleasure that should be his in handwork because he failed at this time to find himself through getting control of these materials as an expression of his creative power. Moreover, if this power to create with things is not acquired before he becomes tied to his books, he may unconsciously come to form wrong ideals of himself as a character, for which he will suffer later. He may sit and picture himself as a really fine fellow, doing all of the heroic deeds of his book heroes, but he gets a fairly true idea of himself when he tries to match his skill among his fellows in their games and in their plays, or when he tries to make toys. It is a far more difficult thing, and a source of greater joy in achievement, to make a boat which everybody can see will really sail or a wagon that truly works, than to sit and dream of wonderful aeroplanes and gunboats. For little children under eight or nine these tangible results, which are judged by their use and are seen

or criticized by others as well as himself, have far more value in the building of the child's character than the ability to read and cipher early.

Again, the child who withdraws too early from his playfellows to his books is going to develop an unsocial character. The trend may not show until his 'teens, the period when he becomes most concerned about his relations with other people. Then, when it is too late to rectify his mistakes, he may have to suffer keenly from the criticism of others, and from all the various other forms of social misadjustment which comes in the high-school age.

Also, the child whose fortunate inheritance has been a high grade of intelligence should not be robbed of the richer, fuller life this inheritance may mean. Instead of being railroaded through the early years at school and finding himself a child of ten among children entering the adolescent age, with all its interests quite unlike his own, he should see to it that the child who gets his lessons quickly has that much time left for music, scientific experiments if he desires, sewing, art work and the like, so that when he is grown his life will be full and happy because of the wideness of his interests. The pride of parents in such a mind should not be that the child enters college early, but rather pride in the richness and variety of the developing life within their charge.

WHAT EXPERIENCES SHOULD PRECEDE THE FORMAL STUDY OF SCHOOL SUBJECTS?

Other articles in this volume have emphasized many of the most valuable experiences with objects of all sorts; toys, play apparatus, tools, nature experiences, pets, soils, plants, water, wind, stories, music to listen to and dance to, excursions to parties, stores, railroad stations, the country, and with people, children and adults.

Each subject will be taken up briefly to show the bearings of such experiences upon the interests which the child takes in the subject and the facility with which he learns to master it.

For a more detailed discussion of the manner of teaching reading, numbers, sewing, handwork, music and drawing, the reader will turn to articles on these subjects in this volume.

LANGUAGE

Let us first discuss backgrounds of language, because these experiences reach farthest back into the baby's life.

Baby Talk. As has been shown elsewhere under "baby talk," helping the baby to an early mastery of speech is most important. Dr. Wood and Miss Edwards have shown the serious injury which may be done to the child's mind

through neglect here. It is not difficult to show the handicaps in later school work which come from failure to hear and pronounce words correctly. Spelling presupposes a knowledge of the word to be spelled. Very often the child's spelling errors are due to his pronunciation of the word. He puts in the letters for the sounds he hears. His recognition of written words largely depends upon his idea of the spoken word, so the child who talks "baby talk" when he enters school not only has to master the tasks which other children have to master for his grade, but in addition has to learn all over how to talk. And as we have tried to show earlier, to unlearn a habit is far harder work than to form it in the first place. Is it fair to require this unnecessary work?

If parents are careful not to talk "baby talk" to the children; not to repeat before the child the cunning baby words the parents love, and thus fix them in his mind; if they are careful to use correct forms clearly and naturally enunciated, the child will soon learn to speak correctly. If, after a time, the parent finds that certain sounds are hard for the child to master, she may help the baby to get these particular sounds. It will never be a help, however, to work on exaggerated pronunciations and distinctions which in our usual talk we do not use, as *of-ten* instead of *of-fen*, because going to the other extreme only raises more difficulty.

Use of Complete Sentences. Very early the child should learn to talk in sentences. Parents are too ready to understand what the baby means and grant his requests. This eliminates all necessity for careful sentences on the child's part, and leads to careless habits. It is a kindness in the mother to be a little obtuse and require the whole story before she understands. If greater care had been taken in this at the right time, many students who, even in high school, fail to recognize sentences, might have been spared much trouble.

On Giving Commands. Whenever necessary to give a command, the mother should first see that she has the baby's attention. Then she should say only the active words, with gesture, to help make it clear, and no more. Many words add confusion. Say "Come here," "Don't touch," "Shut the door," etc. If the child does not understand, she must keep at it until he gets the idea and obeys. This is as important for his mental development as for his moral growth. His mind must grasp and understand what is said; so the language used in speaking to him should be simple and not too much at a time. As he learns to understand, it is well to continue saying a few things to him as before, but not talking down to him. Treat him as a companion, and talk to him as you would to an older friend. It will be surprising to find how the child will stretch up to you and understand.

The Building of a Vocabulary. The child from a cultured home has practically no trouble with "language" at the beginning of school. A child who hears correct speech at home will always, with little effort, use correct speech. Whether

his vocabulary is large or small depends upon the vocabulary of his parents. The child who hears everything attractive described as dear, cute, darling, or "dandy," and unpleasant things spoken of as horrid, a fright, etc., has no idea of the niceties of expression when he wishes to describe an article or a good time. The lazy, careless use of such terms by parents accumulates trouble for the child in school when he has need to describe things or actions. The use of trite expressions for all occasions, as "tickled to death," "nearly died," "cold as ice," and the like, instead of a varied, interesting way of expressing feelings on any occasion, cramps the child's art in the expression of ideas. Words are not big or abstract to a child when he understands the meanings; and he uses these just as easily and unconsciously as the commonplace ones. Parents should pride themselves in making a nice selection of words in talking with and before their children, often using unusual words with meaning made clear by their use. Children are often caught by a unique expression and will ask the meanings of such words and remember them. Always let the child tell what he thinks the word means; then if he cannot understand it, and you must tell him, use, if you can, many synonyms—to make the meaning as broad as possible. Shortly after, the child himself will be trying to use the word. Perhaps there is no way a parent may enjoy the child's development more than in watching his growing ability to say things uniquely and well.

When they narrate events, and the child loves to hear his parents describe little incidents of daily happenings, parents should be careful to tell them simply, clearly and graphically, using always, of course, a pleasing, quiet voice.

The vocabulary should also be built up by the use and experience of many objects, excursions, people. The child who has little general experience will have a meagre language in which to describe these experiences.

Many stories read from books and told to him is another important way of increasing the child's vocabulary. More will be said of the importance of book experience later, under the subject of reading.

How to Help in the Expression of Ideas. Besides learning the names of all objects about him, and their parts, the names of parts of his body, of many descriptive words, of action words, and others, he should, by the age of three, know how to follow and give simple instructions, how to describe his own activities as he performs them (this children do naturally and easily to playmates), how to relate clearly what he has done, seen, or heard while away on some small trip; to carry simple messages; and should be retelling some of the stories that he loves. All this ability should begin to develop at three, and the power to do better steadily increases.

Table and Family Conversation Help. The family gatherings, where every

member of the group should have his turn to talk while others listen, is one of the best situations for developing pleasant family talk. Beautiful courtesy and consideration are resulting values from these talks. The littlest ones need encouragement and help in telling their stories well, and they often try the family patience by the length and rambling character of their stories, but if a real interest is shown and care is taken not to interrupt until the story is finished, they can learn very soon to take a creditable part in these gatherings.

Something to Tell Is Most Important. We are all familiar with the torrent of words the child turns loose after any exciting experience. Often he begins half a block away to relate his woes or pleasures. His language is not always coherent at such times; often there is frequent backing up and filling in of the gaps before the story is all out. However incoherent these outpourings may be, experiences which so fully arouse the child's desire to expression are a necessary part of language development. It is far easier to guide and direct the current once it is started than to grind out expression through composition, as too many classrooms attempt to do, when the child has nothing which he seeks to express in that way. The early years should fill the child full of rich, vivid and valuable experiences which are quivering for expression in language.

Grown people should be cautioned as to interruption in the course of children's narratives. Too often their talk is considered only "babble," to be overridden when convenient. Not only is this a wretched example of lack of courtesy, but it is an effective way to discourage a good narrative. The above does not mean, of course, that a child's narrative must always be given precedence. He, as well as others, must learn when to talk and when to be still, and to use judgment in selecting the times when he should talk.

The Use of Dictation. Parents will find real joy in writing down at children's dictation their various make-believe stories, descriptions of adventures, and letters. The writer has many of these collections, made from the dictation of her little girl onward from the age of four. The ideas run so fast it is hard to keep pace in writing, but the exercise is decidedly valuable to the child. While the child is waiting for the parent to write down what is said, he may be helped to think through the next part. This will lead to better and clearer expressions. Making a story book, writing something for "daddy," who isn't home, a letter to send to grandmother, and many other excuses may be used to make this exercise worth while to the child.

Use of the Typewriter. As early as three the baby may find fun in using the typewriter. There must be a few "don'ts" about touching certain parts of the machine, but barring these, which may be made clear to the trustworthy child, the little one gets much pleasure and later good from using the machine. The

child's ideas run so much faster than his ability to write by longhand, even up to nine or ten, that he should be given this easy means of expressing them. There is no better way to teach spelling than by letting the child try to use the typewriter. He will refer to books, ask questions, and use all sorts of means to find out how to spell when he needs to use spelling. A little girl of my acquaintance, with almost no help, is writing letters, stories and childish poems on the typewriter before she has entered school. There is no injury to eyes and arm muscles in this kind of writing, as frequently there is in the use of pencil or pen.

Reading. The subject of language has been referred to at some length because the home development in language and the same richness of experience needed in that department is of service in reading. The child gets out of a story very little more than he carries to it. If his life has been full of much experience of value he will understand much more than will the child who has had little. The child's shelves should contain not only many books, but books of the best kind. Not just harmless inane books like "The Bobsey Twins," "Little Colonel," and many others, but books full of stories beautifully told which will enrich his vocabulary and his ideas of right ways of saying things. It isn't enough to get these from the library. He needs them always at hand, to know "by heart." These should be read, and read, and read, until he is thoroughly saturated with them.

Background of Good Reading. The child whose parents have read stories to him as they would tell them—with animation, live conversation and vividness—cannot easily fall into the dead sing-song of classroom reading. The books will have become things of life, telling live stories, and he will use them as such when he can read. However poor a reader of adult books a mother or father may be, it is yet possible to read the children's stories and poems beautifully. Elocutionary reading is not desirable; it is unnatural and stilted. The simple and straightforward way, as nearly as possible like the usual way of talking, is best.

Poetry. Before the child can read poetry with any sort of expression, he should have heard poetry read to him until he is so full of it that the expression pours out naturally—until poetry is to him as natural a way to express thought as prose. Children love rhythm, repetition, rhyme, and where they have heard poetry read to express simple thoughts rhythmically, with soft, delightful, quiet voice, they love poetry as much as prose, and later choose their books of poetry for reading as readily as their prose.

Parents often find it hard to read poetry, because the old system of schooling was a perfect method for gradually killing the natural love for rhymed sentences. They are often afraid of it and read with an embarrassed and apologetic air. But this is not necessary, when reading to children. The child brings only his love

of the story and his joy to the reading, and with no adults about, the parent may throw himself fully into the service of the child and read well enough to benefit him. Quite often through such hours the reader rediscovers his own joy in this, and gains as much from the reading as does the child. It is the business of the home to furnish the right backgrounds, which the school is too often powerless to supply.

Music. The same arguments apply to music. With the phonograph so easily at hand, with wealth of beautiful music, it is within the power of most parents to provide lovely melody and harmonies and rhythms, to saturate the home life with music. In so many homes where the older boys and girls or the tired father finds joy and rest in cheap "jazzy" airs, there is all the more reason for counter-acting this tendency with periods every day when the child shall hear good things. Remember the child's taste is forming now, and all the ambitions you may hold for a love of music in your child later is being determined now. Children who hear the beautiful selections over and over again as often choose these rather than the bad when given a chance, unless, of course, thoughtless remarks are made before the child, condemning these. The judgment of his superiors, forcefully expressed, determines very greatly the child's ideals. If the music is too classical to suit some members of the family, in justice to the child's right to hear and choose the best for himself, these thoughts should not be openly expressed. It often happens that, slightly to paraphrase a famous line, "he who comes to scoff remains to pray." As the parent often learns to enjoy poetry, so he often finds peace and rest in the enjoyment of certain music which at first was unlovely because it had never been a part of his environment.

Some excellent occasions for good music are early in the morning while the children are dressing; after the babies are in bed, when they can be quietly listening; a bit sometimes at mealtime, before or after the blessing; at the quiet times before naps, or instead of naps. And it has been found that a nervous tension in the family often may be broken by the unobtrusive use of a suitable piece of music.

This rule should always be observed when listening to worthy music: no talking. There should at least be respect for others' desire to listen. The mood of good music has no power where counter-excitements distract. Training for a decent behavior in other people's homes and at public concerts should be begun here. No child or other person is required to listen if he doesn't wish to; he is always at liberty to go to another room if he chooses, but he must learn not to talk if he remains in the room.

Music may best start not as formal music lessons, but in years of hearing good music and songs and in learning to feel rhythm through bodily response in dance, or simple runs, skips and other activities set to music. The mind

must be music-trained to think music before the hands are asked to make it. And in the same way the child should hear over and over a simple song until he thinks it perfectly before he is allowed to sing it. It will be hard for him to get away from the wrong way when he has sung it. For this reason it is wise to ask him very early to respond with words sung two or three tones, and then increase the number of words and tones as he shows he can sing them.

Even piano lessons may be started in this way. Two children, one six and a half, the other seven, are teaching themselves to play the little songs they have learned to sing.

One child who has had at least four years of music saturation by hearing the best phonograph music and frequent string quartette practice in her home is doing very well in this, first playing the melody with one hand in any key in which she happened to start and then with both hands, using the octave. To make it more complete, her mother often plays the bass or her father plays with her on his violin. She has excellent rhythm, which shows the result of earlier training. By this method she is learning to think and feel music before she attempts to get the technique. Her difficulty with fingering seems to point toward a desire to be helped before long, but there will be no lessons until she has grasped the need for help and expresses a desire to work. Music is to be a much-desired thing, not ever a task, although there will be times when the task of keeping at her practice may make it temporarily drudgery, and she may need coercion.

Number Work. The number interest as shown in arithmetic, which is organized knowledge of number, does not develop much under the age of seven, and even in schools should not be taught as such under that age. Interest in counting, in quantities, in grouping and arranging, often in measures, appears at various ages, and wherever the child needs to add, divide or subtract for his own purposes he is interested in these processes. This is quite a different thing from organized and arranged number. Before the latter can have any real meaning for the child he should have built up a rich background made up of these processes, quantities and measurements in his every-day life, making number facts practical and real. The richer his experience with numbers, the quicker, truer and more thorough will be his understanding of arithmetic when he gets up to it. Arithmetic will be to him an easy process of sorting out, grouping and arranging for quick use of knowledge and facts already old for him. Some delay in order to provide a rich background for number will mean greater speed and thoroughness in the end. How to provide this experience is discussed in the article *Number Work*.

Writing. Writing requires well-developed arm and hand muscles. Writing on paper, the best authorities argue, should not be taught until about the age of

seven. But all the scribbling the little three-year-old does, and much of the blackboard drawing afterwards, may be used to aid later in writing. All the hand control achieved through cutting, building and work in clay have been a direct help to better writing. Any training which has strengthened the eyes has been excellent preparation for writing.

All the circular scribbling, the various slant lines, the horizontal strokes described for the two-to-three-year-old are just as useful here. With the idea of developing writing, the parent may use these for the five-year- or six-year-old as a series of lessons. Large marking crayons, wrapping paper or manila paper should be used, and also the blackboard. Large, free-arm movement always must be the objective. This sort of work is the kind that is done in the more liberal schools during the most of the first year. Later the children write words on the blackboard, but not on paper.

Along with this muscular development should go another development, not related to the first so far as the child can see. It consists in learning to read writing as quickly as print. This gives the child a clear idea of the appearance of the letters before he attempts to form them. Write messages for them to read, also little letters, short stories, and the like.

When the time comes to teach the letter forms, the mother should be careful to use only the ones to be taught in the school the child must attend. Buy a copy-book and work these out. If the child is unfortunate enough to have to learn the technique of writing in the first grade, this home help will have been valuable to him.

However, this is looking ahead. It is the preparation for writing which should concern the home. The child will probably be in school by the time he begins his writing. Don't try to teach any system of penmanship. Schools differ greatly in the systems they employ, and children are easily confused when they have to change from one to another.

The kindergarten has had for its aim always the provision of these backgrounds for first grade work. The modern first grade in the best schools continue this kind of natural life, seeing to it that the provision of the proper background, which has only been provided haphazard in the various homes, is made a part of every child's experience before the school begins its business of formal teaching. And then in these first grades the reading springs up spontaneously and joyously from the desires of the children when they are mentally ready, and later the reading and writing, as I have tried to show it, should grow in the home. Not all of our children are so fortunate in their schools, so it is all the more necessary that until we get the better instruction the intelligent home shall try all the more to make up for this lack.



List of Habits to be Established in Six- and Seven-Year-Olds by Parents

Caution to parents on the use of these lists. Remember that your child is an individual, and as an individual will not develop exactly like any other. If you use these to force your child to "toe the mark" they will become a tool for injury instead of a help to him. These are intended as goals to be kept in mind and worked for, if you can secure in legitimate ways the coöperation of your child. Attainment may be claimed if your child does these things most of the time; you cannot expect, if he is a natural child, that he will always do the correct thing spontaneously.

Use these lists for your child, but do not expect 100 per cent perfection:

HEALTH HABITS

This and the following lists are printed by permission from "A Tentative Inventory of Habits," Agnes Rogers, Teachers College Bulletin.

1. Sleeps twelve hours every night with open window.
2. Bathes regularly.
3. Uses individual towel.
4. Takes care of finger nails.
5. Uses tooth brush properly.
6. Wears proper clothing; wears night clothes at night.

7. Uses toilet properly.
8. Washes hands after going to toilet.
9. Eats only at meals.
10. Drinks the proper quantity of milk and water daily.
11. Eats some fruit and vegetables every day.
12. Does not eat candy between meals.
13. Keeps fingers and materials away from mouth, nose and ears.
14. Uses handkerchief properly.
15. Covers mouth when sneezing or coughing.
16. Makes a proper use of drinking apparatus.
17. Does not handle unnecessarily his own food or that of others.
18. Holds body in erect position when standing.
19. Holds handwork or book in a correct position.
20. Observes rest period.
21. Sits on his chair correctly.
22. Plays part of every day out of doors.
23. Avoids getting wet, wears rubbers, and removes damp clothing.
24. Shows no fear of animals, storms or darkness.
25. Carries out directions of school nurse, doctor and teacher.
26. Does not go too often to moving pictures.

PERSONAL HABITS.

1. Comes to meals on time.
2. Responds instantly to signals.
3. Obeys the parent, or any one in authority.
4. Eats with mouth closed.
5. Takes mouthfuls of suitable size.
6. Does not talk with mouth full.
7. Permits few crumbs to fall when eating.
8. Keeps floor clean.
9. Puts away materials.
10. Keeps desk, toys, shelves and closets in order.
11. Does not waste materials.
12. Closes doors and moves furniture quietly.
13. Reports broken toys immediately.
14. Tells the truth.
15. Is careful with books.
16. Values and takes care of things he has made.
17. Does not give up easily.

18. Is reverent at prayer.
19. Dresses and undresses himself morning and night.
20. Goes to school regularly.
21. Goes directly home from school.

SOCIAL-MORAL HABITS.

1. Is polite in entering or leaving rooms or in passing people.
2. Says, "Please," "Thank you," "Excuse me," "Good morning," "Good-by."
3. Is friendly toward other children.
4. Does not "tattle."
5. Waits his turn.
6. Does not take the best for himself.
7. Is willing to share materials and his own possessions.
8. Does not say or do anything to annoy others.
9. Shows kindness to those who are younger or weaker.
10. Plays fair and works fair.
11. Allows the child who first obtains a toy to keep it.
12. Does not take anything that belongs to another.
13. Gives back to owner things lost.
14. Does not quarrel.
15. Settles difficulties without appealing to the adults.
16. Does not needlessly interrupt others.
17. Remembers that one person only should talk at a time.
18. Obeys the rules of the family.
19. Is willing to take part in group activities.
20. Is good-natured under trying circumstances, for example, when he cannot have his own way, or when he loses his possessions.
21. Does not take or destroy the property of others.
22. Salutes when the flag is presented.
23. Stands when the national anthem is sung.

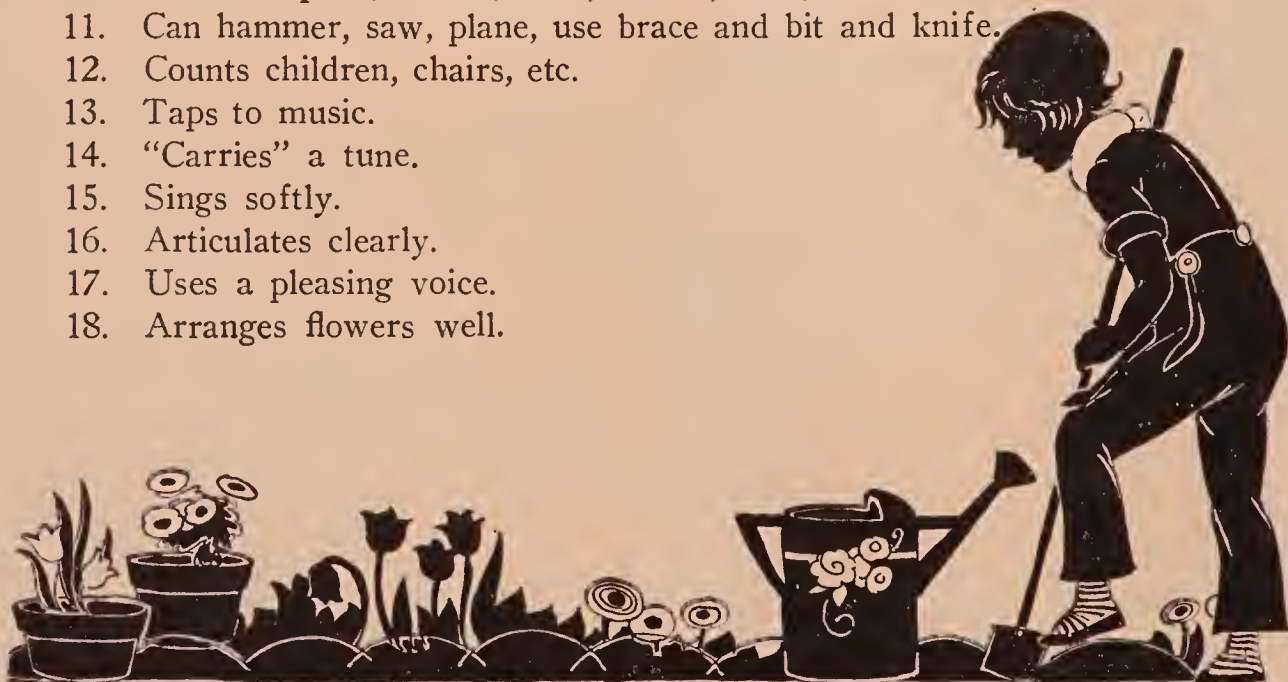
INTELLECTUAL HABITS.

1. Comprehends immediately when addressed.
2. Performs errands satisfactorily.
3. Dramatizes a simple story.
4. Narrates a simple story.
5. Enjoys humorous situations.
6. Avoids ungrammatical forms of English like "it ain't."

7. Listens attentively to nursery rhymes and stories.
8. Asks for help only when necessary.
9. Helps to make usable rules.
10. Finds useful occupations.
11. Uses good judgment in selection of materials.
12. Concentrates on his work.
13. Can see defects in his work and strives for improvement.
14. Plans in advance the steps he must take to carry out his project.
15. Holds his project in mind until it is completed.
16. Appreciates success with school work.

MOTOR SKILLS

1. Puts wraps and rubbers in the proper place.
2. Puts on and removes wraps quickly.
3. Takes off and puts on his own rubbers.
4. Uses feet alternately in going up and down stairs.
5. Performs physical activities such as skipping, galloping, hopping, running, marching, dancing.
6. Carries liquids carefully.
7. Ties shoestrings, sashes, ribbons, etc.
8. Handles crayon, paintbrush and pencil properly.
9. Uses needle and scissors.
10. Can use spade, shovel, fork, trowel, rake, hoe.
11. Can hammer, saw, plane, use brace and bit and knife.
12. Counts children, chairs, etc.
13. Taps to music.
14. "Carries" a tune.
15. Sings softly.
16. Articulates clearly.
17. Uses a pleasing voice.
18. Arranges flowers well.





School Days





Reading a Necessary Accomplishment

MADELINE DARROUGH HORN

A MOTHER does not need to be convinced that her child should become an excellent reader. She realizes daily that reading is the tool to many necessary things. She knows that she must read accurately to get the desired results from her recipe. She knows she must read correctly to copy properly the pattern of Italian cut-work described in her magazine. She also knows that the father of the household must be a good reader to use his professional magazines to the best advantage. And when the mother thinks of the many school subjects—geography, history, civics, physiology, and many more—to which reading is the key, she is inspired to lend a helping hand in making her child the excellent reader he ought to become.

A recent investigation of the silent reading abilities of low-ranking university students further shows the need of being a good silent reader. It was suggested to certain teachers who realized how often reading is the key to other subjects in a university curriculum that possibly some students made poor grades not because they were lacking in brain power but because they were poor readers. Intelligence tests were first given to ascertain the native mental capacity of these students. Then followed the testing of their silent-reading abilities. It was found that all were poor readers—even those with average or more than average intelligence. In fact, most of these students could not read as well as the average sixth-grade pupil in a school where reading was given its full share of emphasis.

READING PRESENTS MANY PROBLEMS

It would seem that reading must necessarily be easy to learn, because so many people have mastered it. However, investigation of adult reading would show that this mastery is often of a very poor quality. We want our children not only to learn to read, but also to learn to read well. With this ideal in mind, teachers have many problems to solve, if the quickest and most lasting means of teaching reading are discovered. The following problems suggest only a few of the many that must be answered:

1. How can we insure quick and accurate response to thought units?
2. Does lip movement retard speed?
3. What physical qualities (smooth or rough paper, size of print, kind of ink, etc.) must a book have to prevent eye strain?
4. How can we train children to make proper eye pauses?

These are a few of the many problems constantly arising that can be settled only by experimentation. Many teachers are working on these problems, and in a few years our information will be much more illuminating and abundant than it is now. In the meantime, if teachers and mothers make use of all present knowledge, they can greatly improve the reading abilities of our children.

KINDS OF READING—SILENT AND ORAL

That reading is not all of one kind does not always occur to us. One way of describing the types of reading is to say that they are of two kinds—oral and silent. Each type has problems of its own, as well as many in common.

Oral reading is necessary when the family group is assembled for the story hour, to hear mother read a poem, John tell a story, or father read an interesting item from the newspaper.

Silent reading is the voiceless reading we use when we read the newspaper, a tale from a magazine, or a pamphlet on health conditions of our city. It is safe to say that the bulk of our reading is of this kind. As children progress in the grades, means are used to develop more and more this type of reading, because it is the type children will use most as they progress in the grades and in life outside the school.

SILENT READING FOR THE BEGINNERS



Here is a type of silent reading both mothers and teachers have found effective for beginners. It is not only effective, but is also "great fun," if conducted with our so-called "pep." If mothers ever run across the term "flash cards" in their educational reading, it is the educational term for the process the writer is about to describe.

To define it: A flash-card is a strip of cardboard with words, sentences, or phrases printed on it and used in helping children to master silent reading. The materials needed to make these cards, with a word of explanation, are as follows:

1. *Cardboard.* The town printer can supply left-overs (these are cheapest) for this purpose. Let the printer cut them the proper size, as he can do it so easily with his machine. Have the cards cut four or five inches wide. This gives enough width for good-sized lettering. The length will vary with the length of the word, phrase or sen-

tence that is to be printed on them. Make the length of all the cards in each set the same, as they are more easily handled and have a better appearance. Choose a white or manila cardboard. A colored one involves unnecessary eye strain.

2. *Ink.* Use the so-called "show-card" ink. India ink is good, too, but is more expensive.
3. *Lettering pen.* A lettering pen is broad at the end, instead of pointed. A width of an eighth of an inch is satisfactory.
4. *Rubber bands.* These are a great help, but not essential. They keep the sets of flash cards from getting mixed and individual cards from being lost.
5. *Place to keep them.* Often materials upon which mothers spend a great deal of time and thought are destroyed because there is no adequate place to store them. A box or shelf of sufficient length, and free from dust, will answer the purpose for storing these flash cards. A set of cards taken care of in this way will last as long as the children need them.

How to Print the Words, Phrases or Sentences. Learning to letter these cards will work out very much like learning to embroider. First attempts will be poor, but practice and patience will eventually bring a presentable product.

Make the letters about three inches high and about an eighth of an inch thick. This width and height avoid eye strain.

Use capital letters, and punctuate just as you would for adult reading.

Substitute Material. If you are a rural mother, and trips to town are few, do not be discouraged. Use substitutes. The rural teacher will especially welcome help from mothers, as she probably has fifteen children of varying ages scattered through a number of grades, with not only reading but all subjects to teach.

Cardboard boxes, or even wrapping paper, could be used. Cardboard has the advantage of being more easily handled, because of its stiffness. Ordinary ink and pen or a crayon could be used. It would take longer to give the width to the letter and would not make so bold a type. However, working with substitutes is better than not working at all. Some of these exercises could be managed with a blackboard and chalk.

What to Print on These Cards. The following are merely suggestive; they by no means exhaust the possibilities of this type of work. It is hoped that the following examples will inspire mothers to elaborate the plan, using their personal home situations and wealth of ingenuity. Mothers will be surprised to know how rapidly these exercises will increase the number of words a child can read.

Action Cards. One set of cards the writer has used with her own child is the

"action" cards. Each card has a word suggesting an action printed on it; for instance, such words as skip, hop, run, sit, stand, jump, gallop, walk on tip-toe, side-step, bend, etc. To use them, the mother only exposes the card she wants the child to see. The child responds by doing what the printed word suggests. If "skip" were flashed, he would skip; if "hop" were flashed, he would hop; and so on.

Names of Pieces of Furniture. Another set might have the names of pieces of furniture printed on them, such as table, chair, stove, piano, rug, etc. The child could be asked to touch the article of furniture the exposed card asks for.

Object Cards. Another exercise is this one: Have a basket of objects—pencils, chalk, cup, pins, etc. Make suitable cards. As a card is flashed, ask the child to pick up from the basket the object the card indicates.

Yes and No Cards. These sets can be built up about familiar household objects. Such statements as the following could be made:

The child reads the statement and responds suitably with "Yes" or "No":

"My dog has feathers."

"My dog has two feet."

"My chicken has four feet."

"My cat purrs."

"My canary is yellow."



Your own household situation will suggest an endless variety of these "Yes" and "No" cards.

Preposition Cards. These little words are often confusing. Action sentences involving them will help:

"Put the book *on* the table."

"Put the book *under* the table."

"Go *up* the stairs."

"Go *down* the stairs."

As each card is flashed, the child responds by doing as it directs.

Use a Vocabulary the Child Understands. There are several cautions in building up and teaching reading from these cards. Be sure to use only those words whose meanings the child understands. This is not difficult, because a six-year-old has at his command a large number of words.

Speed an Essential. Another caution is to remember always to manipulate these cards quickly—as fast as a child can comprehend the word. If you let the exercise lag, the bad habits of a slow reader might develop and become permanent.

THESE CARDS A CHECK ON COMPREHENSION

This type of exercise gives a mother a check by which she can determine whether a child is comprehending what he reads. Have you had your child read a

Mother Goose rhyme to you perfectly, much to your delight, and later you found this reading was only an excellent feat of memory? If the word "table" is flashed and the child places the card on a chair, it is obvious that he did not read correctly.

PHONICS

Phonics are usually too technical a task for the mother. It takes a specially-trained person to teach them properly. In fact, the study of phonics is such an extensive one that in some universities professors have as their sole aim that of finding out all they can about the sounds of our language. However, if a mother's training has been such that she feels she can give her child additional help in phonics, this procedure might be followed: Learn from the child's classroom teacher the method she uses. Use this same method at home, to avoid any confusion for the child that might arise from a conflict of methods.

READING FROM BOOKS

This should go hand in hand with the work with the flash cards. Neither should be neglected. Reading out of books for the beginner usually means reading our children's best literature, as this is the type of reading we most often find in our good primers and first readers. We find *Mother Goose* rhymes, the easy poems of such authors as Christina Rossetti and Robert Louis Stevenson, and our never-grow-old folk tales like "The Three Bears," "Three Billy Goat's Gruff," "The Gingerbread Boy." This fortunate choice of subject matter by the editors of these books at once insures a lively interest on the part of the child.

The type of reader to avoid is the one whose contents would hold the interest of only a two-year-old. A six-year-old child has grown into quite a person! He can think very well, has many interests, and is happiest when life is proving complex and interesting rather than simple and dull. This type of reader trails along something like this:

"I see a cat." "I see a rat." "The rat sees a cat."

A DISCUSSION OF METHOD

If one picks up manuals on reading, numerous methods for the beginner are suggested. This condition suggests the truth that this field is one in which we need much more experimentation to justify one course as against another. The procedure the writer suggests is one that many first-grade teachers have found successful, and on that basis alone it is recommended.

Be Sure the Child Knows the Meanings of All Words. Before attempting to teach a child to read any piece of literature, be sure he knows the meanings of all the words. Even *Mother Goose* has a way of introducing unfamiliar words.

Some children might need an explanation of "crown" in "Jack and Jill." Others might not know the meaning of "meadow" in "Little Boy Blue." Three words in "Little Miss Muffet" always need explaining—"tuffet," "curds" and "whey."

Read the Story First. Read the story or poem to the child until he is familiar with it before starting the actual reading. Children will already be familiar with the content of most readers if the mothers have given them a proper background in literature in their earlier years. In the course of this reading, explain any words that might be unfamiliar.

How to Do It. A cardboard marker about four inches long and an inch wide helps the child to mark off the line he is working on. Be sure he understands that a spoken word is represented by a printed one. Suppose the mother and child sit side by side, both looking on the page to be read, with the first line indicated with a marker. The mother might read the first line and then ask, "Do you find any words you already know?" These can be picked out. Then the mother suggests, "Now you read it." There must follow a test of the recognition of individual words and phrases. The mother might ask, if the story of "The Three Little Pigs" is being read, "What are these words?" indicating the phrases "Once upon a time." If the child does not know it, tell him. Again, she might ask, "What is this word?" indicating the word "pig." If he knows it, pass on; if not, tell him. The mother can determine the amount of repetition necessary.

Drill Necessary. There is no denying that this process is drill. But remember, children do not mind drill if it is going to teach them to perform that wonderful feat that unlocks untold treasures of information they can get all by themselves without calling on a reluctant or busy parent!

Flash Cards, a Help. The flash cards can be used to vary and check this process of word, phrase and sentence recognition. Again using "The Three Pigs" as an illustration, make cards with such words and phrases as these on them: "Three little pigs," "mother pig," "a man," "with a load of straw." These might be spread out on a table. The mother reads, and when she pauses the child is to indicate the word or phrase that completes her sentence. For instance, the mother reads, "Once upon a time there was a" The child should point to "mother pig." A mother's ingenuity can vary this checking exercise with the flash cards so it will continue to be good fun.

Length of Period. Several fifteen-minute periods are more desirable than one long period. A child's physical make-up is such that we must not expect adult concentration.

Care of the Eyes. Learning to read is probably the severest strain the child's eyes have had. In the beginning, if you have any reason to suspect eye defects, have the eyes examined.

The Development of Handwriting

ANNA MAE BRADY

THE child finds himself in a great, unexplainable world, wherein all things are new and strange to him. He is continually receiving new impressions and reacting toward them. If he is a normal child, he gives expression through laughing, crying and bodily movements. These are supplemented by talking, as soon as he masters that feat. But a little later even these prove inadequate. All the pathways of approach to his little mind are open, and he feels the urge to open up new ones for the discharge of his pent-up energy. So he imitates his elders and makes use of scissors, brush, pencil and crayon.

The mother who understands utilizes this desire for new modes of expression on the part of her child in teaching the beginning steps of writing. It is true that he has no need of writing at this time. He has no background for it—only a desire to execute. But as handwriting calls for a highly specialized form of muscular development, the time can be profitably used in preparatory work. In teaching him to read, we first lead him to get the thought, the tone, the rhythm of speech before he masters the written words; so in writing there is a play-time leading toward muscular control.

Materials Used. Our motive in teaching writing is that the child not only may express his ideas in this way, but also that he may execute in a free, fluent and pleasurable manner. It is impossible to write freely, fluently and pleasurably if one uses a cramped style. In other words, it is impossible to write well or easily if one rests the wrist and hand on the paper and writes with the finger movement. The desirable way is to use the large muscles of the arm instead of the fingers.

Children are bits of plastic material put before us. They are ours, to make or mar. We can give them correct writing habits or we can give them incorrect ones. It is for us to choose.

With this in mind, we should see to it that children are provided with the right sort of material. Pens, small pencils and ruled paper are conducive to cramped writing, while crayon, large crayolas and large pencils make for muscular movements.

Every child should have access to a blackboard. It furnishes the large chalk so necessary; the surface is soft and soothing to the nerves, and it also permits supervision by the mother. The blackboard is an excellent answer to the ever-recurring question, "What shall I do, mother?" It provides an opportunity to re-live old activities, to create, to put one's self in the other fellow's place—all through picture writing—and thereby life becomes bigger and broader.

Picture Writing. Primitive man wrote pictorially before he wrote alphabeti-

cally, and the child if left to his own devices will follow the same mode of procedure, for he develops in exactly the same way as did the race. Naturally, then, the picture writing and rhythm work come before the writing of words. Teaching him to write without first giving him the idea back of what he writes is like teaching him to read words of which he does not know the meaning.

The first attempts at pictorial writing are of course very crude. They would be unnatural if they were not. The child does not see detail, but only the mass, and he executes accordingly. His wonderful imaginative power fills in the breach caused by the lack of coördination of mind and muscle.

Stories like the following would be unreadable without the aid of the little interpreter, to whom they are entirely clear. They are deserving of the mother's most careful attention, for in them her child is telling a story. If he is encouraged to write pictorially he will soon develop into the next stage of writing. They are not meaningless scrawls. They are the beginnings of that wonderful art of handwriting.



In this picture writing the child will use only straight lines for his figures. He will linger in this stage until he has some power of execution, and then he will demand something more difficult. In other words, when he has some skill in picture writing, he will then want to write "just like mother does." Consequently, all the aid the mother can give him in this play period preceding the writing of words and letters is most valuable, for it develops the working in unison of mind and muscle.

It is best to permit the child to take the initiative in this, if possible. Encourage him to make these pictures, giving careful attention as he "reads" them. Suggest new activities for him to represent. The more action a story contains, the more anxious he will be to represent it.

Any of these straight line figures will be welcomed with joy by the average child when he is learning to write.

Rhythmic Writing. Hand in hand with this picture writing goes the work in rhythm. These two are of vital importance, and must in no way be neglected. Formerly it was considered legitimate to introduce the child at once to the word, and expect him to write it. Now we know it is too difficult—the race mastered it only yesterday. If we begin at once with the writing of words and sentences, the child will have neither motor images that command nor coördinated muscles that execute.

Children are instinctively interested in the regular recurrence of action and sound. They are so full of this sense of rhythm that they love to dance, swing and sway to music or to musical sounds. The same music may induce one child to do a certain thing and another to do just the opposite, but they all have one thing in common, and that is the feeling of this rhythm. It enters through the ear and finds a responsive chord in their bodies.



The mother can make use of this love of rhythm in the development of muscular control. She can begin with Mother Goose rhymes, because they represent the heart beats of the race when it, too, was in that rhythmic stage. The child knows them. They are his rightful heritage, and he loves them because they are so full of pictures and action which he can understand. He is used to putting them to little tunes of his own making as well as moving his body to their rhythm.

At the suggestion of the mother, as she repeats the jingle, he will mark the rhythm on blackboard or on paper. Here are some that have been worked out by children.

Jack be nimble, Jack be quick,
Jack jump over the candlestick,

was expressed in this way:



This is how the old rhyme of Jack and Jill looked:



Hey diddle diddle, the cat and the fiddle,
The cow jumped over the moon;
The little dog laughed to see such sport,
And the dish ran away with the spoon—

brought this picture:



This is Humpty Dumpty:



The beating of a drum is represented in this way:



After a child learns to express himself through these short jingles, longer verses may be used. The poems of Robert Louis Stevenson are childlike, full of action, and still hold that poetry of motion so necessary for rhythmic writing. This one is especially liked:

How do you like to go up in a swing,
Up in the air so blue?
Oh, I do think it the pleasantest thing
Ever a child can do.

Up in the air and over the wall,
Till I can see so wide,—
Rivers and trees and cattle and all,
Over the countryside.

Till I look down on the garden green,
Down on the roofs so brown,
Up in the air I go sailing again,
Up in the air and down.

The poem is first discussed until its meaning is perfectly clear. Then it is memorized and often represented in this way:



In this way the child is given the foundations of handwriting—rhythm and coördinated muscles; best of all, it has not been given in the form of work, but in the spirit of play.

More Exercises for Muscular Control. The child is now ready for the more formal exercises for muscular control, but they, too, are much more effective if

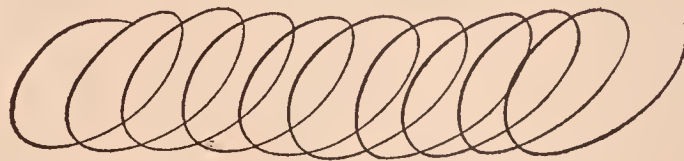
given in the spirit of play. The mother will first show how it is done, then erase her work so there will be no tendency to copy, and then count while the child does the exercises.

Here are some directions and responses :

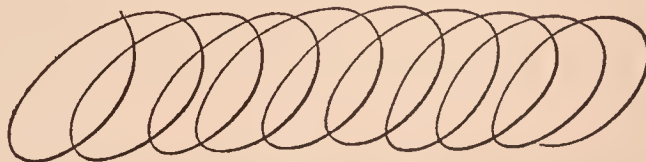
This little girl is jumping the rope. She can jump three times without missing.



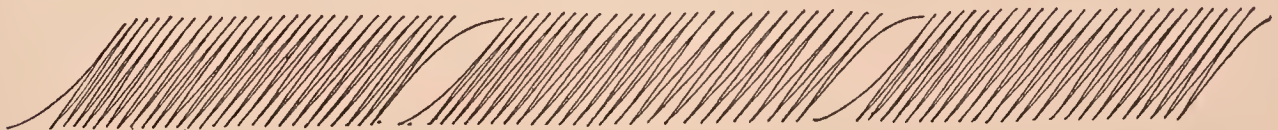
See her take ten steps forward :



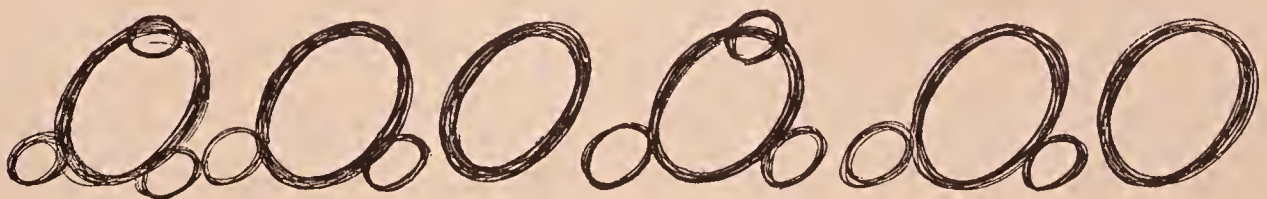
She can go backward ten steps, too :



Here is a little boy going up hill. The hill is slippery, and no sooner does he reach the top than he slips down again. See him go up, down, up, down :



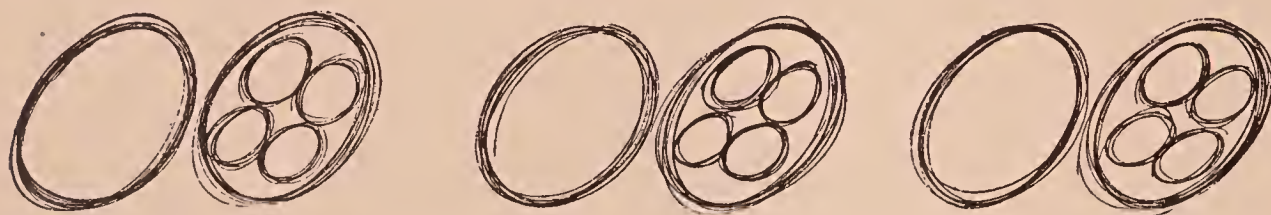
Do you remember the story of Raggybug? I am going to make a picture of him. Watch me make his body as I count ten. I shall count ten as I make one ear, now the other, now the tail. Erase, and make it as I count. First the body, then the ears, and then the tail :



Let us place eight eggs side by side. I shall count ten as I make each egg. Watch me:



Here is a bird's nest. See me make it as I count ten. You make one as I count. Let us make another, and put some eggs in it. How many eggs shall we put in? We shall have to make them rather small, in order to get them in. Make the nest as I count ten. Now, each egg as I count five:



Of course only one of these exercises should be presented at a time. Children will often suggest others. No matter what the writing lesson is to be, it should be preceded by exercises of this sort, in order to "limber up" the muscles. At the beginning of the writing of words and sentences one half of the time should be taken up with this work. In the early stages this should be given on the black-board or with large pencils or crayolas, but it should be continued long after the child begins to write with pen and ink. If paper is used, the unruled should be chosen, for we want the child to use the big muscles of his arm; if he has to think about confining his efforts to a small space he is inclined to use a cramped



finger movement. When he has mastered the major difficulties and it is clearly evident that he is using the muscular movement, then paper with wide spaces may be introduced. When he learns to follow these lines with no difficulty, the ordinary spaced paper should be provided.

The Writing of Words and Sentences. Formerly when a child was taught to write he was given the letters separately, and these were later combined into words. To-day there is a feeling that there should be just as much thought back of the written expression as there is in the reading. In the latter subject we no

longer teach single letters first, but the word as a whole. If a child is taught letters, he will see letters when what we desire is that he should see the larger unit. This principle holds equally true in writing.

For the first word to be written it is well to select one with which the child is entirely familiar, one that is simple and full of meaning for him. A word taken from his favorite story will usually be attractive, and he will want to learn to make it. For instance, if he happens to be interested in the story of "The Little Red Hen," the word "hen" may be selected as being simple and appropriate.

First, the mother should carefully write the word several times, having the child watch her. Then she should erase it, for the child should not be taught to imitate. He must, on the contrary, be led to rely on his own resources and express himself. He then attempts to write the word as he remembers it. No



matter how crude the writing, it should be praised, for it represents his first attempt and his best effort. If he hesitates as he writes, he should be stopped and told to watch as the word is written again, for fluency is one of the aims of writing, and it is of supreme importance that correct habits be established from the beginning. After the word has been written once, it should be repeated again and again until he is perfectly familiar with it.

A simple sentence may be used instead of the word, if so desired. In either case, it is important to refer to the story or poem from which it was taken, in order that he may put some thought back of his writing.

When once he has some idea of the words as a whole, a drill may be given on the separate letters of which it is composed.

Pen and Ink. As soon as the child can write simple words and sentences easily and fluently, he is ready for pen and ink. Now that he has mastered the mechanics of writing, both mother and child can devote themselves largely to the development of muscular movement. This must be mastered before he begins on the form of the letters. The thumb and first two fingers hold the pen in place, with a grip only firm enough to keep the penholder from slipping. Only the ends of the last two fingers and the muscle near the elbow should touch paper or desk. When once the correct position is assumed, the thumb and fingers remain unmoved in their relative positions. The elbow muscle becomes the pivot on which all movement depends. It moves the pen up and down and describes an arc from left to right.

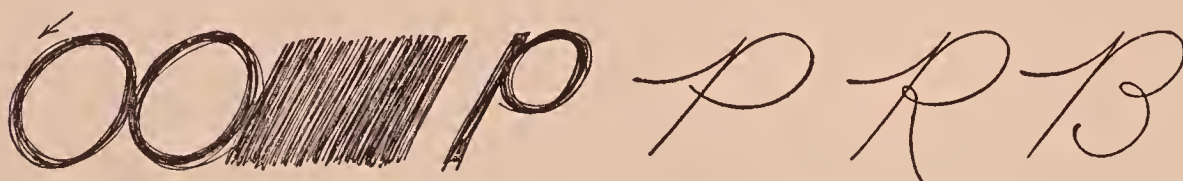
If left to follow his own inclinations, the child will at once begin to write words and sentences. This he should not be permitted to do unless it is evident that he is making use of the same muscular movement that he used in writing with crayon and pencil. Exercises like the ovals and the push-pull will promote the use of the big muscles.

Grouping for Practice. Many of the letters, both capitals and small letters, are similar in form, and may well be combined for practice work. When one has learned to make the capital O well he has acquired the movement and largely the form of D, A and C; also the E combines almost the same principles. Therefore, we join in our first group, O, A, C and E:



You should practice with patience on the first character, the direct oval, before attempting to form the letters which follow it.

A second group includes P, B and R. Mastery of the first makes easy the other two. Before attempting the letters, practice long upon the indirect oval and the downward and upward straight lines—a push and pull exercise:



Another group includes N, M, H and K. Preceding the forms of these letters are movement exercises:

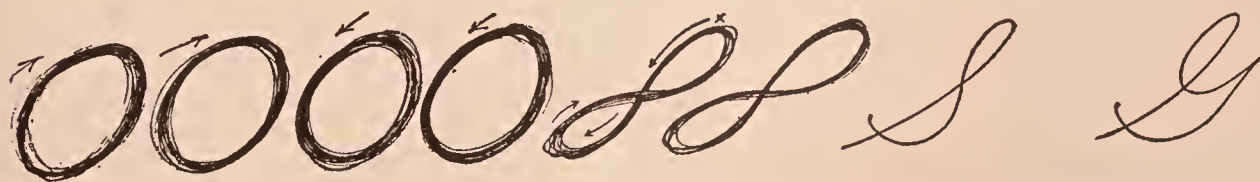
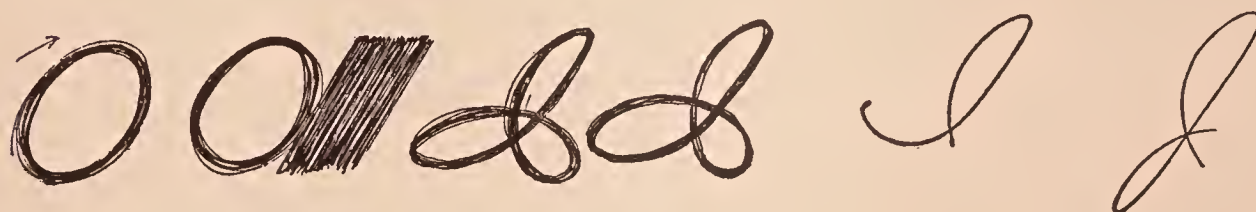


A still larger group comprises U, V, W, X, Y and Z. Practice the movement exercises first:





The three following groups complete the alphabet of capital letters. These are based on the figure 8 exercise and variations of it:



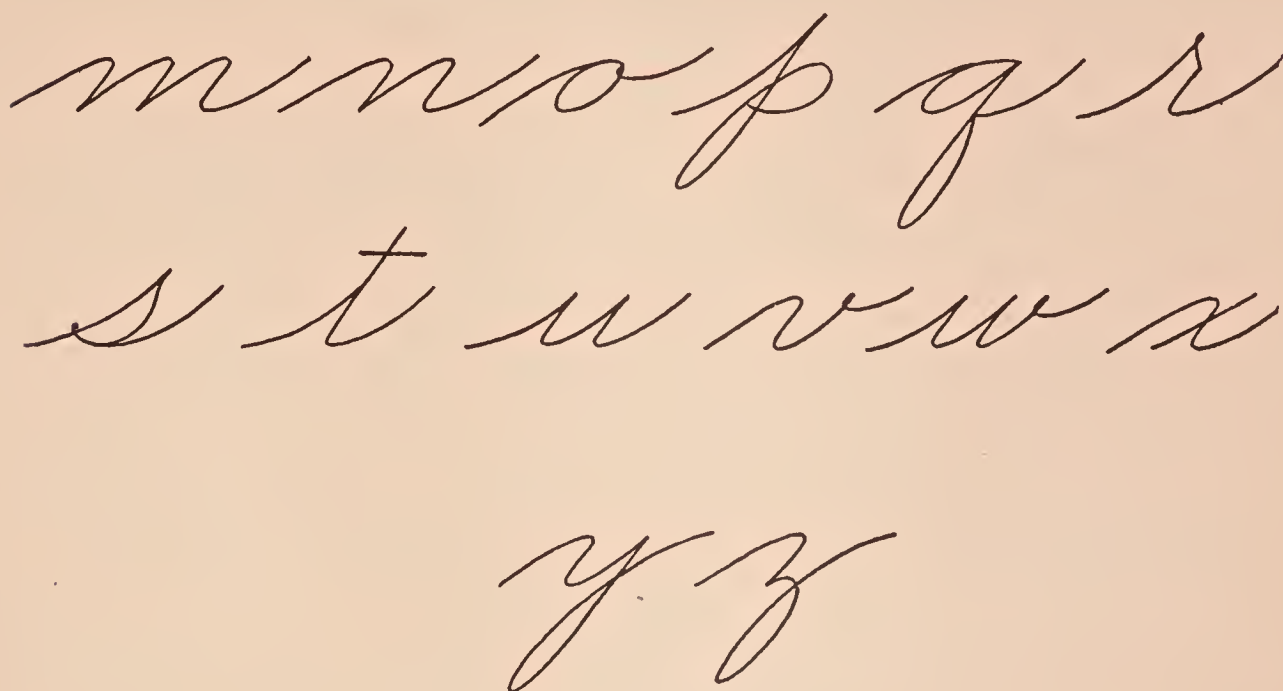
In conclusion, we place in two groups all the capitals and small letters, to serve as convenient copies for much careful practice work. All of this work should serve for many hours of practice.



K L M N O
P Q R S T
U V W X Y

1 2 3 4 5 6 7 8 9 0

a b c d e f
g h i j k l



Be pleased to remember that in order to become a good penman—one who does not have to apologize for the appearance of his handwriting—all that is needed is the will to persevere.

It may not be out of place to give particular emphasis to the last sentence above. Particularly illuminating is it to have brought to one's attention a thing that is seldom considered, and that is this: There are twenty-six capital letters and twenty-six small letters, a total of fifty-two. Even if these were all made differently, the task of mastering each of the fifty-two forms would not be difficult; but as a matter of fact many letters contain almost the same principles, so the mastery of all the forms is manifestly simplified. There hardly exists a rational human being, who if he would exercise even a little determination, could not become an excellent penman. By degrees it is desirable to impress this encouraging fact upon the mind of the growing and persevering child. Help him to see how really simple a matter it is to become a good penman, and impress upon him the satisfaction he will get through life from good handwriting.

Letter Writing. Writing will be of little value to the child unless he has something to write. Most every child is only too eager to make use of this newly-acquired skill in writing to his friends. He needs to be trained to plan and talk over what he is going to write, and then he may sit down and write it neatly and quickly. He should have before him a letter which he will be able to follow after some explanation by the mother.

Form of a Typical Letter

Heading

*110 N. Grove Street,
Macon, Ga., May 1, 1923.*

*Master William Collins
180 St. James Street,
Minneapolis, Minn.*

(Introduction)

Dear Willie

(Salutation)

Body of Letter

Complimentary
Close

*Your sincere friend,
Georgie Moore.*

*Master William Collins
80 St. James Street,
Minneapolis,
Minnesota,*

Addressed
Envelope

It is equally important that the child be early introduced to the simple business forms. When something is to be ordered, permit him not only to make out the order, but teach him how to do it.

828 Clinton Street

Des Moines, Iowa, July 1, 1923.

D. F. Rawlins Co.

1010 East 24 Street,

Emporia, Kansas

Dear Sirs:

Enclosed please find a post office
money order for which please send me one
Star football.

Very truly yours,

Harold Sanders

There are two types of invitations with which the child needs to become familiar—the formal and the informal. He can in this way invite his friends to his

Mrs. John Blake

requests the pleasure of Clara's company
at a birthday party in honor of her
daughter Mary on Thursday, June the
eighth from two to five.

812 N. Lincoln Ave.

128 Grove Street,

Cleveland, Ohio. July 18, 1923.

Miss Dorothy Ashby,

412 Boulevard,

Cleveland, Ohio.

Dear Dorothy:

I am having a little party
Saturday because it is my sixth birthday. I
should like to have you come from two to
five Will you?

Your friend,

Geraldine Moore.

parties, real and imaginary, and accept or decline the invitations which are sent to him (see next page).

Stories and Poems. To become a good penman, one needs to practice a great deal. With a child this practice will become irksome unless the exercises are given in the form of games, and the material written is something in which he is interested.

Stories are very fascinating at this period and he likes to reproduce them in different sorts of ways. He will enjoy writing them, but in so doing it is not to be expected that any attention will be given to minor details. He will perhaps tell a complete story in two or three sentences. On page 326 is a reproduction of the story of the "Three Billy Goats," as written by a six-year-old child.

Mrs. Amos Fletcher
is very happy to accept for her
daughter Clara Mrs Blake's kind invita-
tion to Mary's party on Thursday
afternoon.
63 Oakside Drive.

Mrs. Amos Fletcher
regrets that Clara will not be able to
accept the kind invitation to Mary's
party on Thursday as the family is
planning to leave for the country on
Tuesday to remain for the rest of the
summer. Otherwise she would have
been delighted to accept.
63 Oakside Drive

"The Three Billy Goats wanted to go over on the hillside. They wanted to eat grass. The old Troll would not let them cross the bridge but the biggest goat bunted him off. Then they ate the grass and grew very fat indeed."

Not only should the child re-tell the folk-tales but he should write original ones after having discussed the subject thoroughly beforehand. Here is one from a child five and one-half years old:

JACK-IN-THE-PULPIT.

I have some Jack-in-the-Pulpits. I picked them Saturday. They like shady, damp, places. They are purplish brown and green. The Indians cooked the roots. Sometimes they called them Indian Turnips. The pulpit looks like an umbrella. Way down there are little flowers. Afterwards the pulpit drops off and the Jack all dries up and the little flowers turn to little red berries.

Children love poetry, and when encouraged to read and write it, life for them takes on a new meaning. Some of their efforts are as follows:

The Kingfisher

Oh, little fisherman with a little
Coat of blue,
How to you do?
You fish all day,
And then you play.

Sweet Roses

Roses, sweet roses
I wonder why,
In the green grass,
You pleasantly lie.
Drinking the rain,
And enjoying the sun,
Roses, sweet roses,
Please tell me the fun.

The Secret

Pretty little fairies,
That have such tiny wings,
That fly about so often
In summer and the spring.
Where do you lie
In grasses high?
Or in the trees up there?
Where do you sleep at night?
Won't you tell me dear?

Number Work

ANNA MAE BRADY

THE only legitimate excuse adults have for forcing the knowledge of any subject upon plastic childhood is that through this knowledge the growing child is better able to cope with new and untried experiences and to solve the intricate problems which appear on every hand—in short, that this added power will make for a fuller and a richer life. The study of number work will successfully pass this test. A knowledge of its principles and operations is absolutely essential for every normal person who would take his place in the affairs of men. The child is forced to make use of it as soon as his mental faculties begin to function.

The mother who wants more than all things else to help her child in every way, so that he will react to the experiences of life in an intelligent manner, will early familiarize herself with the most approved methods of presenting this important subject to the little child entrusted to her care. It is true that the fundamental processes are the same as when she received the instruction, but fortunately through progress in educational affairs we are year by year coming into a knowledge of more economical methods of presenting the same subject matter.

The arithmetic of yesterday was a formal thing. It dealt with problems foreign to the experience of the child. It was dull and uninteresting to the majority, because of its remoteness and because of the unattractive way in which it was presented. To-day all this is changed, for the subject is now related to life. The city child is no longer forced to work unending problems dealing with bushels of wheat and acres of land which he has never seen and which of course hold no interest for him. The country child no longer works problems of the shop and factory. On the contrary, each group of children and each individual child now perfect the fundamental processes by working out problems within their understanding and experience. Consequently, number work means more to them. They feel that they are not working endless problems to prepare them for some future experience which may never come to them, but on the contrary, in the range of their probable experience they are given work which is quite certain will help them intelligently to solve the little problems which are confronting them every day in their relationship with other people. They are laying most essential foundations.

The mother who would help her child must become imbued with this idea. She will not present material which deals with future school work or the business of life, but only such as will take care of his immediate needs. Life is a won-

derful experience full of opportunities and possibilities. It does not exist entirely in the future. It is with us now, a living, breathing reality; and the baby who is helped to live it more abundantly by solving his little problems is not only made happier thereby, but at the same time the foundations of his future are laid.

THE DEVELOPMENT OF NUMBER

Primitive man, as long as he lived by himself, had little need for number, but as soon as he began to live with others and had to take them into consideration, then the necessity for this knowledge became imperative. Without possession of number facts he was unable to trade or barter, could not ascertain the number of skins necessary to clothe his family nor estimate the strength of the hostile tribe.

The first attempts of the race to develop the number idea were simple and very crude indeed, but they were sufficient for the time being, for they answered immediate needs, and that was all that was necessary. As civilization advanced and the experiences of life became more complex, this science developed accordingly.

The savage formulated his number concepts by using his fingers as counters, and when all were used he referred them to numbers as "a hand," meaning 5; "two hands" meant 10. In Madagascar a chief was once observed counting his army as follows: The soldiers passed before the chief and a pebble was dropped as a counter as each one passed. When ten pebbles had been dropped, one pebble was set aside and a new pile begun, and again when the pile had grown to ten, one was set aside, and so on until ten had been set aside, when one was set aside to mean one hundred. The Aztecs indicated 10 by a picture of the "upper half of man," and their word for 10 was *matlactli*, or hand-half. Some Indian tribes in the North express twenty thus: "A man come to an end." Another tribe calls it "One Indian ended."

These few illustrations taken from thousands that travelers have brought to us from the remote tribes indicate the attempt of the low races to formulate number relations so they may have some control over this important element of number in the life about them, by which they count and estimate their possessions and carry on trade and compare the wealth and strength of different tribes. The same need that leads to this crude formulation on the part of the savage leads to the finer formulation and study of arithmetic as it is found among the more civilized peoples of the world. Of course the culture value of arithmetic is more or less to the front in the higher civilization, but emphasis on the culture value is much criticized; especially at the present time, when technical and vocational work is attracting the attention and receiving the approval of a large part of schoolmen and laymen, there is a tendency to teach arithmetic for its utilitarian value.

A good distance back in the centuries we find it taught in the schools of the Far East merely for its utility, and therefore only those parts of it that were useful to the people and answered their vital needs were given consideration. Among the great traders of Southwestern Asia—the Phoenicians, Babylonians and others—we find that arithmetic was taught extensively, as is seen by the tablets found by excavation in that part of the world. The tablets show comprehensive bank accounts, and some recently found show work of school children. Among some of the Semitic people arithmetic occupied from one-third to one-half of all the school time during the years corresponding to our later grade and high-school years. In the commercial cities arithmetic was taught entirely for its utility. Italy as a commercial nation gave to the world mercantile arithmetic. During the time of the Hanseatic League the merchants throughout the commercial cities and all along the routes of trade demanded that the arithmetic of trade and commerce be taught, and when the products of the church school did not satisfy them they set up schools of their own for the study of arithmetic under control of a *rechenmeister*, who was usually the city sealer of weights and measures. Indeed, arithmetic was so completely dominated by commerce that it was no longer mentioned in the courses of study of even the best schools.

Among the Romans and the Greeks we find a few pleas for the study of arithmetic for its culture value. Plato, Aristotle and Pythagoras all set value upon it as a cultural subject. Plato said, "It awakens the soul;" Pythagoras placed it with gymnastics and music as the three great educational subjects, naming them in this order: gymnastics, music and mathematics. "By the first the pupil was strengthened; by the second, purified; and by the third, perfected and made ready for the society of the gods," he wrote.

COUNTING

The mother's first efforts to teach number to her child will be in teaching counting. It is true that at this time the numbers will be meaningless to him, but he will nevertheless like to say them because of their rhythm. This sense is very acute in the child at this period, and the saying of the numbers is music to his ears because he hears in it the regular recurrence of sound.

At an early time in its development the race was in that rhythmic stage when it loved to swing and sway to musical sounds and to tickle the ear by making up words and sentences that rhymed. It was then that peoples proceeded to produce the first race literature, the rhymes and jingles which were handed down by word of mouth from generation to generation until printing came into use and thus these efforts were finally made available for the children of all ages. These jingles are the rightful heritage of our boys and girls, and they are beloved by

every child in every land, not so much because they tell interesting childlike stories but because of the rhythm they contain.

The saying of numbers belongs to the category of musical sounds—musical at least to the ears of children. Therefore in teaching children to count we are not only giving them pleasure but we are teaching them something which they can apply to their everyday experiences.

The child is essentially interested in his own body and the body of his mother. So the counting of his little fingers and toes as well as the finger plays produced by the mother prove most fascinating—in fact, so much so that they become a part of his very life.

Every mother has touched her baby's toes and said:

This little pig went to market,
This little pig stayed at home,
This little pig had bread and milk,
This little pig had none;
This little pig said "Wee wee" all the way home.

But not every mother realizes that in so doing she is presenting number work. The child does not know it, either, and that is the best sort of early instruction; but he does begin to realize that those little pink toes which he had regarded as a mass are separate things. Later he comes to know that there are five of them.

This little rhyme helps fix the names of the numbers, especially if the mother uses her fingers to represent the Indians:

John Brown had a little Indian,
John Brown had a little Indian,
John Brown had a little Indian,
One little Indian boy.
One little, two little, three little Indians,
Four little, five little, six little Indians,
Seven little, eight little, nine little Indians,
Ten little Indian boys.

Children like this finger play: The mother locks her fingers together and shows them the top as she says, "Here is a hill." Now she shows the fingers: "And here ten little men. Up jump the little men—1, 2, 3, 4, 5, 6, 7, 8, 9, 10." As she says each number she raises a finger.

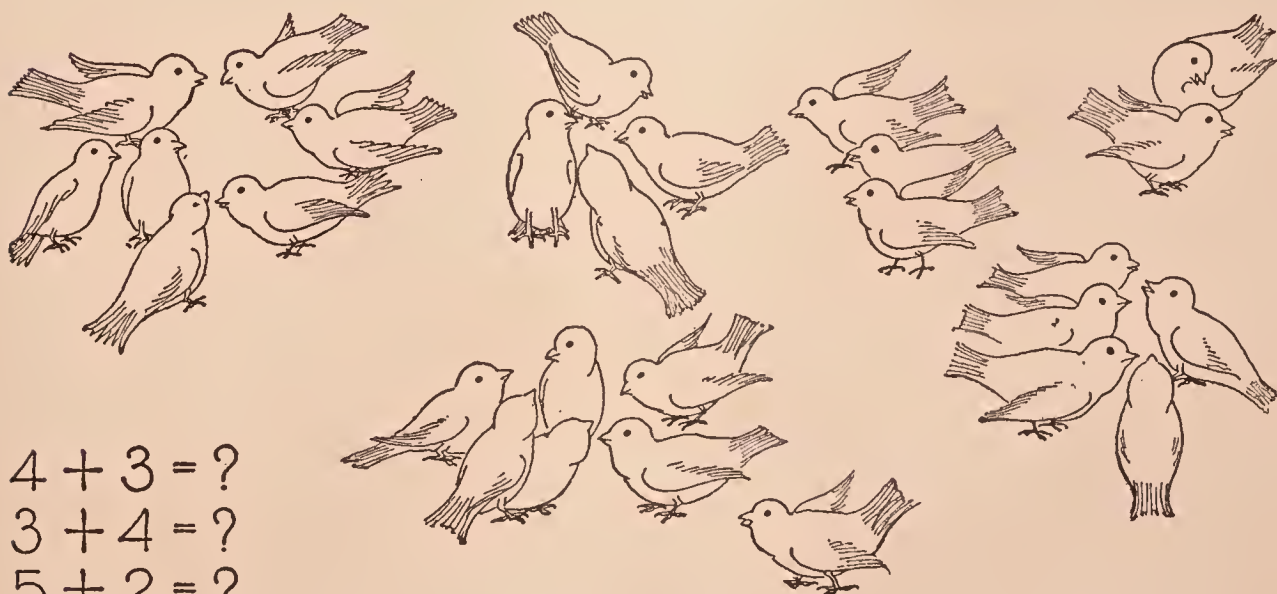
While in this rhythmic stage the child should be taught to count as far as possible by 1's—the goal, of course, being 100. Then he can be as easily taught to count to 100 by 10's and by 5's. He can repeat the names glibly, yet he may

not know that there is any difference between two objects of a kind and five objects of the same kind, except that he has a vague notion of quantity. Offer him his choice of two sacks of candy; his decision will not be based upon the number of pieces but upon bulk or colors or previous experience in taste. His choice is made because he sees more pleasure in one group than in another. For the same reason he may choose a penny in preference to a dime.

Concepts of magnitude and value precede concepts of number. Number is not a property of objects, as is color or size, but is an abstract idea that is much more difficult to acquire than concepts of attribute or property. Since it is so much more difficult to acquire, the artificial helps supplied by the teacher must be selected upon some scientific basis if waste is not to occur.

The first real concept of number is shown by the child's instinctive desire to group objects or to divide them. This is his earliest effort to count. He does not say, "one, two, three, four, five, six, etc.," but he first points to one object of a kind and then to another of the same kind.

He has acquired through the sense of hearing a few words which represent number, but one number word suits his purpose as well as another, with his choice in favor of the easiest for him to speak. He has not yet acquired the real number sense, but he has acquired the concept of individual things as being separate



$$4 + 3 = ?$$

$$3 + 4 = ?$$

$$5 + 2 = ?$$

$$6 + 1 = ?$$

$$2 + 5 = ?$$

$$1 + 6 = ?$$

$$7 - 3 = ?$$

$$7 - 4 = ?$$

$$7 - 2 = ?$$

$$7 - 1 = ?$$

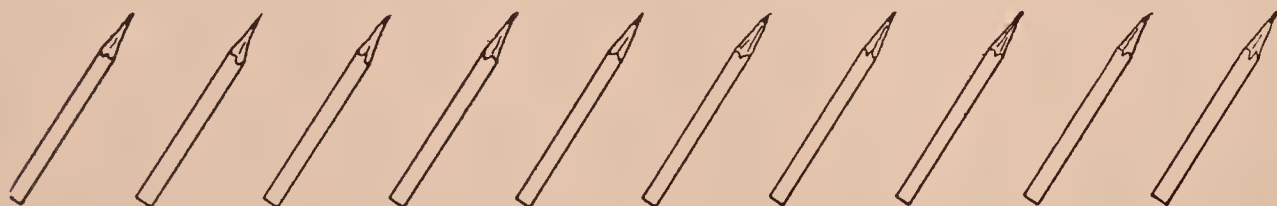
$$7 - 5 = ?$$

$$7 - 6 = ?$$

from each other. He is unable to see why the fourth apple in a row of six apples should have a name different from that of the first apple or the sixth one. To him they all look alike; then why not call them all "one" or "six"? Here is one place for the exercise of patience on the part of the mother. Grouping and counting form the beginnings which in time lead to such combinations as are shown in the drawing of groups of birds on page 331.

While the act of counting is perhaps instinctive, it is chiefly through the language the child hears that he desires to group and separate objects and find terms to express the groups and the processes he has employed. His *first* process is that of the recognition of objects as one vague whole. His *next* process is that of separation of this whole into its component parts. His *third* and last process in counting is the recombining of what he has recognized as separates, or ones. The first step is *observation*, the second is *analysis*, and the third is *synthesis*. The child begins with a group and ends with a group—but the first group is a mere unit or mass; the second is composed of two or more *ones of the same kind*.

The functions or uses of numbers are artificial, not natural, hence they involve abstract mental processes. The *idea* of number arises from a natural or instinctive desire to measure quantity, magnitude, distance. These concepts are developed through the child's recurring experiences. He learns by experience that he cannot touch the moon, although he has repeatedly reached out his hand for it. He has learned by experience that one knife is worth more in a trade than another. He has learned by experience that value does not always depend upon weight or size. An "aggie" may not be any larger than a hundred other marbles he owns, but he will trade a handful of common clay marbles for one "aggie." He does not know why, except that experience has taught him that this is the case. Thus the child develops the ideas of value and quantity.



As we have indicated, real objects must be counted first—objects before symbols—but the child must be led to get away from this crutch as soon as it is expedient to do so. It is better to take the objects away too soon than to leave them too long; if he forgets they can be referred to at any time, but as soon as possible he should become independent of these aids. For fixing the number

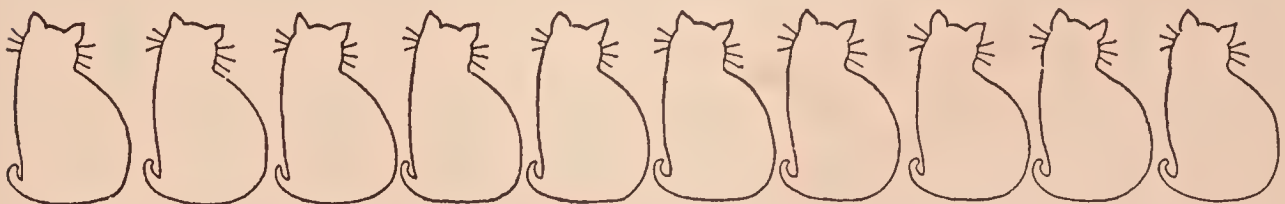
idea firmly, nothing is better than kindergarten blocks. Children enjoy playing with them, and they lend themselves admirably to the teaching of the fundamental processes. Kindergarten beads which come in cubes, spheres and cylinders are excellent for counting material. Children can arrange them in groups, string them on a cord, and use them in various other ways.

In order to vary the work in visualization, the mother might make use of the child's blackboard in the following ways:

Draw a row of ten apples:



Have them counted serially—one, two, three, four, five, six, seven, eight, nine, ten. Count from right to left as well as from left to right, the latter being the usual method merely because we read and write from left to right. But we do not always find in actual experience that we count real objects in that way. We learn to count them when they are arranged in any order or in no order. Ask the child to count ten little "biddies" with the old hen—they are not likely to arrange themselves in a nice straight row for him to count. Let the mother draw a group of ten chicks in any order, and then in no order. These are to be counted by ones. Let her draw ten cats, or ten chairs or ten oranges, or ten



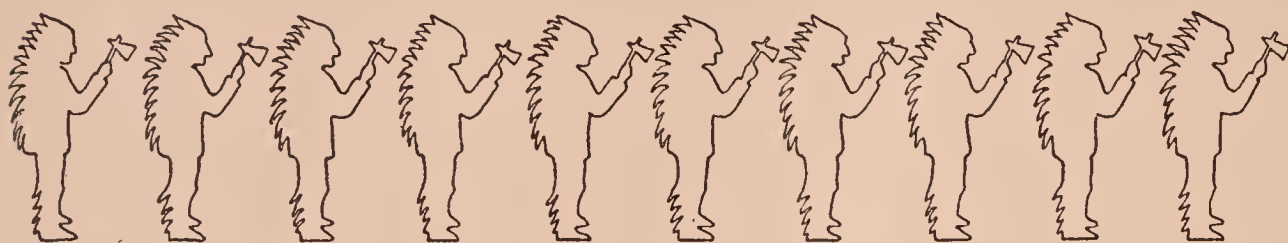
boys, or ten houses. These need to be drawn only with a rapid stroke of the pencil. The child's imagination will supply what the mother's haste makes nec-



essary to omit in the way of details. Such drawings of familiar objects may be arranged as shown in the illustrations.



In counting, it is always best at first to have real objects—all of a kind and as nearly uniform as may be. It is hardly possible to supply the children with much of a variety of objects. As soon as it can well be done, the mother should make the transition from the object to the picture or drawing. Here again, all the pictures must be alike. The mother should be able to draw quickly on the



board a row of flags, houses, chairs, books, apples, pears or cats. These may be arranged for group-counting, and also for subtraction.

The next step in this visualization in counting is to count the objects in groups. These pictures of ten oranges, or ten chicks, or ten kittens, or ten chairs, or ten flags, or ten pencils, should now be placed on the blackboard all in one group, without any special design as to arrangement. For example, a hen and ten



chicks should be drawn in a natural grouping. The child should learn to count them in this group. The process is more difficult than counting in a straight row, but this orderless group is the natural formation. Let the child count by

two's in this group by placing two fingers on two chicks at a time, until the entire group has been counted. Draw a group showing ten eggs. Have him "pick these up," two at a time, and count them. When the number twelve is the subject of drill, he should count the eggs by three's also, then by three in each hand, as the grocer does.

Hand in hand with the counting of objects should go the writing of numbers.

ARABIC NUMERALS

As the child counts orally or mentally, he may be taught to make a straight mark for each picture counted. Thus, he counts a row of chairs and marks 1, 1, 1, 1, for each one counted. He is taught to write his marks close to each other, thus, ||||. Then he may group those marks in this way:

one	two	three	four	five	six	seven	eight	nine	ten
1	2	3	4	5	6	7	8	9	10

He should now learn to write these forms of expression on his tablet or on the blackboard, and he must be taught that they are merely *three ways of writing the same thing*. The mother should drill frequently on the visualization of the

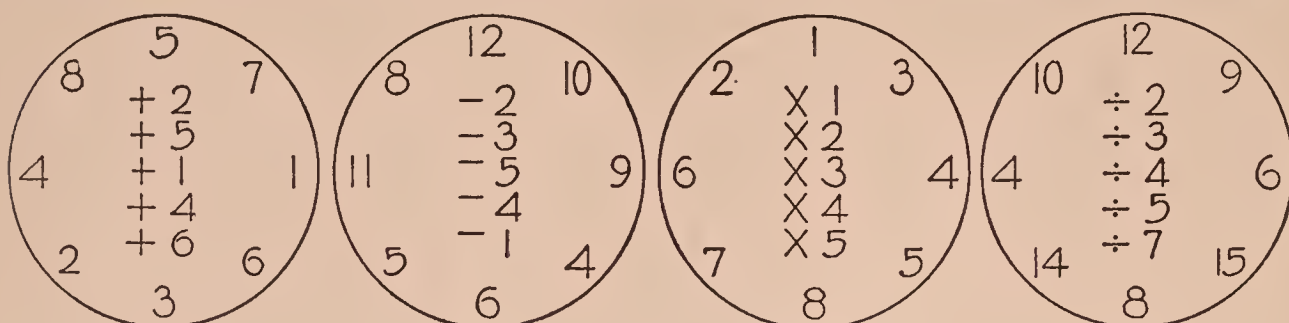
0 1 2 3 4 5 6 7 8 9

Naught One Two Three Four Five Six Seven Eight • Nine
Arabic Numerals.

words and symbols, skipping frequently from one to another as she points with a ruler or pointer to |, three, 6, seven, |||, 5, etc.

THE FUNDAMENTAL PROCESSES

From the first work with the objects the mother has been teaching addition, subtraction, multiplication and division. Now that the child is able to *read* and *write* numbers, the real work in these processes should begin. At first they should be worked out objectively; that is, the child should discover for himself by the aid of blocks, beads, pegs or other objects that $4+2=6$. Later, these number facts need to be drilled upon each day, for they must be mastered before he is able to go on with the next step. If the mother asks the question, "Four apples



and three apples are how many apples?" and the child does not know, he should not be told, but should be given chalk and asked to make four apples and three apples on his blackboard and find out how many he has made. Bundles of kindergarten sticks or toothpicks bound by rubber bands in bundles of ten are useful in teaching the combinations. Let him count out and band several tens, then propose the problem, "How much is ten and one more?"

Addition: Teach the child that—

$$10 + 1 = 11; \text{ also that } 10$$

$$+ 1$$

$$11$$

If the child has learned to write the figures 1 to 10 he will instantly grasp the idea, and the sign $+$ (meaning *and*) will be taken almost for granted. If he questions, say simply that $+$ is a brief way of writing *and* with figures. In a like manner, placing the splints each time in groups as suggested will show that $10 + 2 = 12$, $10 + 3 = 13$, and so on, up to 20.

As soon as the child can place the splints from 1 to 20, and can write and name each combination so far shown, he is ready to learn that "2 tens are 20," up to "5 tens are 50."

So far, little emphasis will be placed upon the larger numbers but as they develop logically from the simpler combinations they may be taught whenever the child is ready for them, keeping in mind these cautions:

1. Do not fail to drill thoroughly on the numbers from 1 to 10 and then from 10 to 20, before teaching the numbers from 20 to 50.
2. Let the larger numbers come in answer to natural curiosity in the child, induced by his knowledge of the smaller numbers.
3. Go slowly, but do not stress a familiar thing after interest and curiosity over that particular thing have faded.

The child should be drilled on the following forty-five combinations until he knows them perfectly, and can read the sums at sight without this process of addition. This is not so difficult as the inexperienced mother might imagine.

The child can just as unerringly learn to think "seven" when he sees "three" and "four," as he can learn to say "you" when he sees "y-o-u." But psychology teaches us, and experience enforces the doctrine, that the mind fatigues more quickly when thinking number symbols than when thinking sound symbols in spelling and reading. Hence, number drills should be brief but frequent. Each of these combinations should be written on a card. These cards may be used for games and drill.

$\begin{array}{r} \text{I} \\ \text{I} \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 2 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 3 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 4 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 5 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 6 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 7 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 8 \\ \hline \end{array}$	$\begin{array}{r} \text{I} \\ 9 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 9 \\ \hline \end{array}$	
$\begin{array}{r} 3 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 9 \\ \hline \end{array}$		
$\begin{array}{r} 4 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 9 \\ \hline \end{array}$			
$\begin{array}{r} 5 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 9 \\ \hline \end{array}$				
$\begin{array}{r} 6 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 9 \\ \hline \end{array}$					
$\begin{array}{r} 7 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 9 \\ \hline \end{array}$						
$\begin{array}{r} 8 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 9 \\ \hline \end{array}$							
$\begin{array}{r} 9 \\ 9 \\ \hline \end{array}$								

Subtraction: This process can be taught hand in hand with addition. When a child realizes that $6+5=11$, he can readily see that $11-6=5$.

Multiplication: Here, of course, the child begins to learn the tables. He first works them out with objects, such as kindergarten sticks banded together with a rubber cord. When he discovers that $4 \times 2 = 8$, he is ready for drill on that until he knows it well. On page 338 is an illustration which the mother may use to show that multiplication is an easy way to *add* numbers. He is to find the sum of each column and the number in black type at the top indicates the number of 2's there are in the column. Similar tables are constructed for the 3's, 4's, 5's, 6's, 7's, 8's and 9's, as they are needed.

1	2	3	4	5	6	7	8	9	10
2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2
		2	2	2	2	2	2	2	2
			2	2	2	2	2	2	2
				2	2	2	2	2	2
					2	2	2	2	2
						2	2	2	2
							2	2	2
								2	2
									2

These problems in multiplication should appear upon the set of number cards:

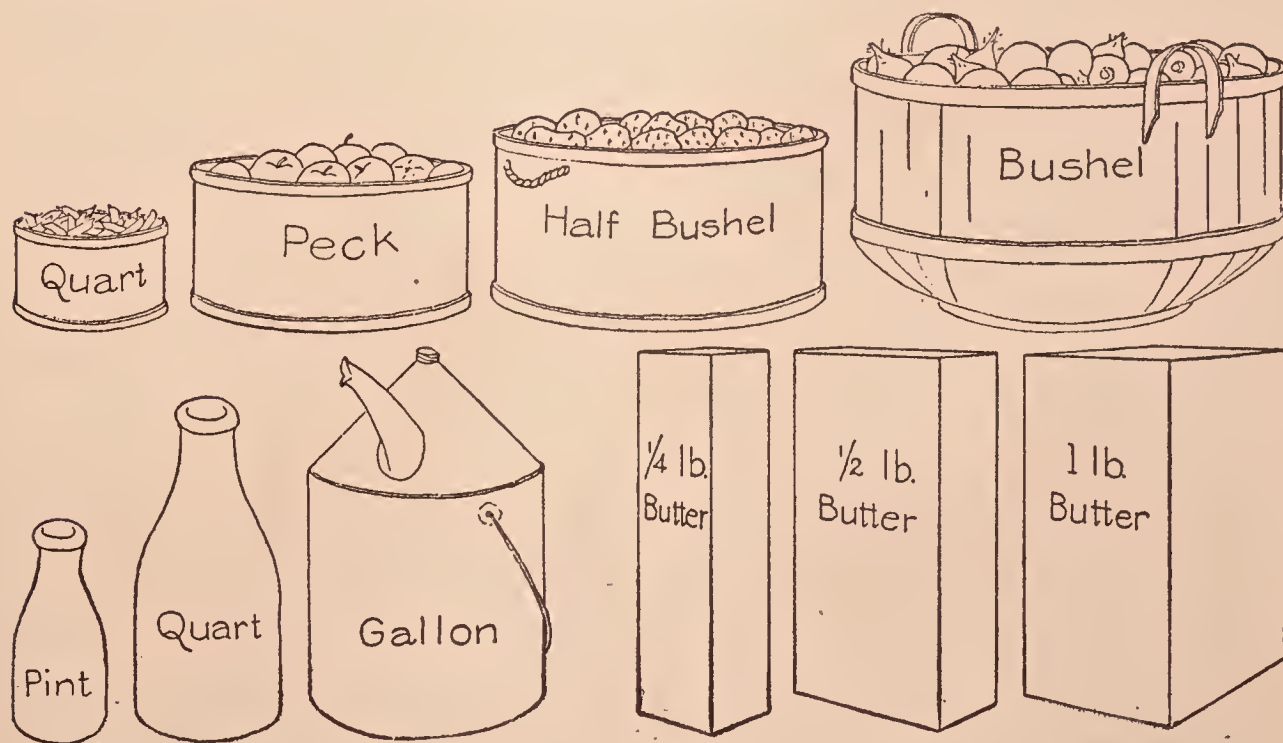
$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$		
$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$			
$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$				
$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$				

By the use of the cards it will be discovered that several of these problems are duplicates, hence the drills should be confined chiefly to 2×2 , 2×3 , 2×4 , 2×5 , 2×6 , 3×3 , 3×4 , 5×2 —only eight problems. These should be read backward as well as forward: "Two times three, two times four, two times six, three times four," etc., and then "three times two, four times two, five times two, six times two," etc. There are but eight possible problems in multiplication up to a product of 12, when we eliminate the duplicates and those involving 1 as a multiplier. Even a child in a kindergarten knows that 3 is 3.

The importance of this observation rests with the fact that the tedious process of memorizing all the tables is as unnecessary as it is unpedagogical. Another observation is that emphasis in instruction and drill should be given the more difficult steps and processes. If a child learns to recognize the eight products and their relations to the factors producing them, a long stride has been made toward a complete mastery of the multiplication "table" later.

Division: The process of division should be taught in connection with multiplication. Here, then, are the first problems on the division cards. They are read "two into two, one time; two into four, two times," etc.

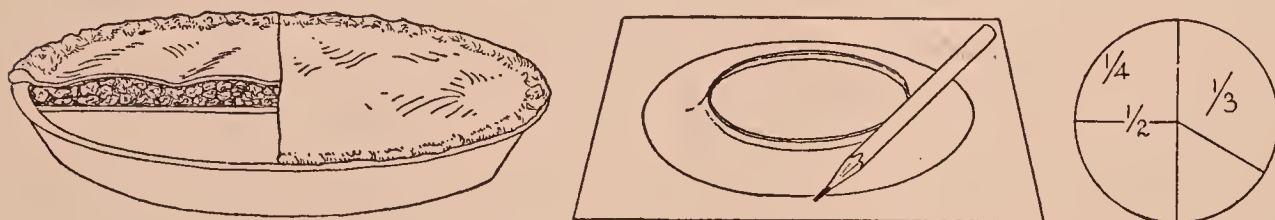
Problems: The child now has an idea of the four fundamental processes, and to become valuable to him they must now be used in problems which are within his understanding and which make some sort of an appeal to him. The wise mother makes use of the home activities in formulating her problems. For instance, she says to the child, "We are going to have company for dinner to-night, and I would like to have you help me set the table. How many are there of us? Four. We are to have four extra to-night. For how many will we need to set the table? All will take coffee but two. How many cups will you need? We will set half of them on this side of the table. How many will that be?" Here is an application of the principles which is at once interesting and instructive. Hundreds of problems of this sort present themselves for solution each day. Why not let the child have a share in working them out?



Give him a bank and a book in which to keep an account of money spent. He will soon learn to do this easily, and with it he will learn the relative value of quarters, half dollars and dollars.

Problems will be neither interesting nor clear if they contain material foreign to his experience. He will never have a clear conception of an acre of ground until he sees an acre—until he can experience by his vision what an acre looks like. A yard means nothing to him until he is shown a yard and is taught how to measure a line in yards. So with pints, quarts, ounces, pounds, pecks, bushels, etc.; the child must actually see the quantities measured out before he can thoroughly understand the relation of one to the other. This only shows that number arises from quantitative measuring of real things. The child *sees* that one boy is taller than another. He *feels* number when he handles objects in counting them or when he uses the ruler in measuring lengths. Not only does the sense of touch reinforce the percepts gained through the sense of sight, but experience is necessary to fix these number relations in the nervous system; for unless his activities with number do finally result in a lodgment in his nervous system there can be no reaction, and when there is not reaction we may rest assured the child has not acquired.

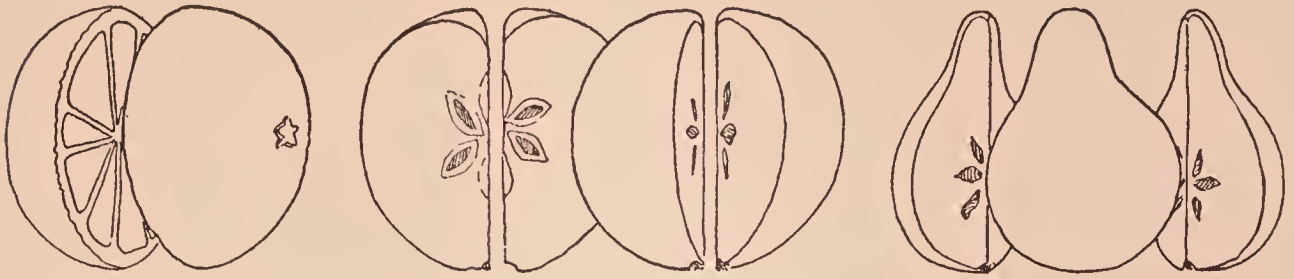
Fractions. The child will need to use the terms one-half, one-fourth, one-third, perhaps one-eighth, and so must be taught what they mean. This can best be accomplished by concrete illustrations in the home. The mother makes him a little pie for lunch. He is allowed to cut it himself and as he cuts it in two parts she tells him that each part is called one-half, and then she writes $\frac{1}{2}$ on his black-



board. He now cuts the pie in fourths, and she explains that each part is called one-fourth, writing that also as she names it.

With the aid of a round dish, some white paper and scissors, plus his mother's help, the child cuts out several circles. She shows him how to fold the paper in half. He does that and cuts off one-half. This he pastes on a black card, writing $\frac{1}{2}$ underneath it. He proceeds in the same way with $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{3}$. These cards are placed around the room for future reference, and he knows the fractional parts better for having worked with them.

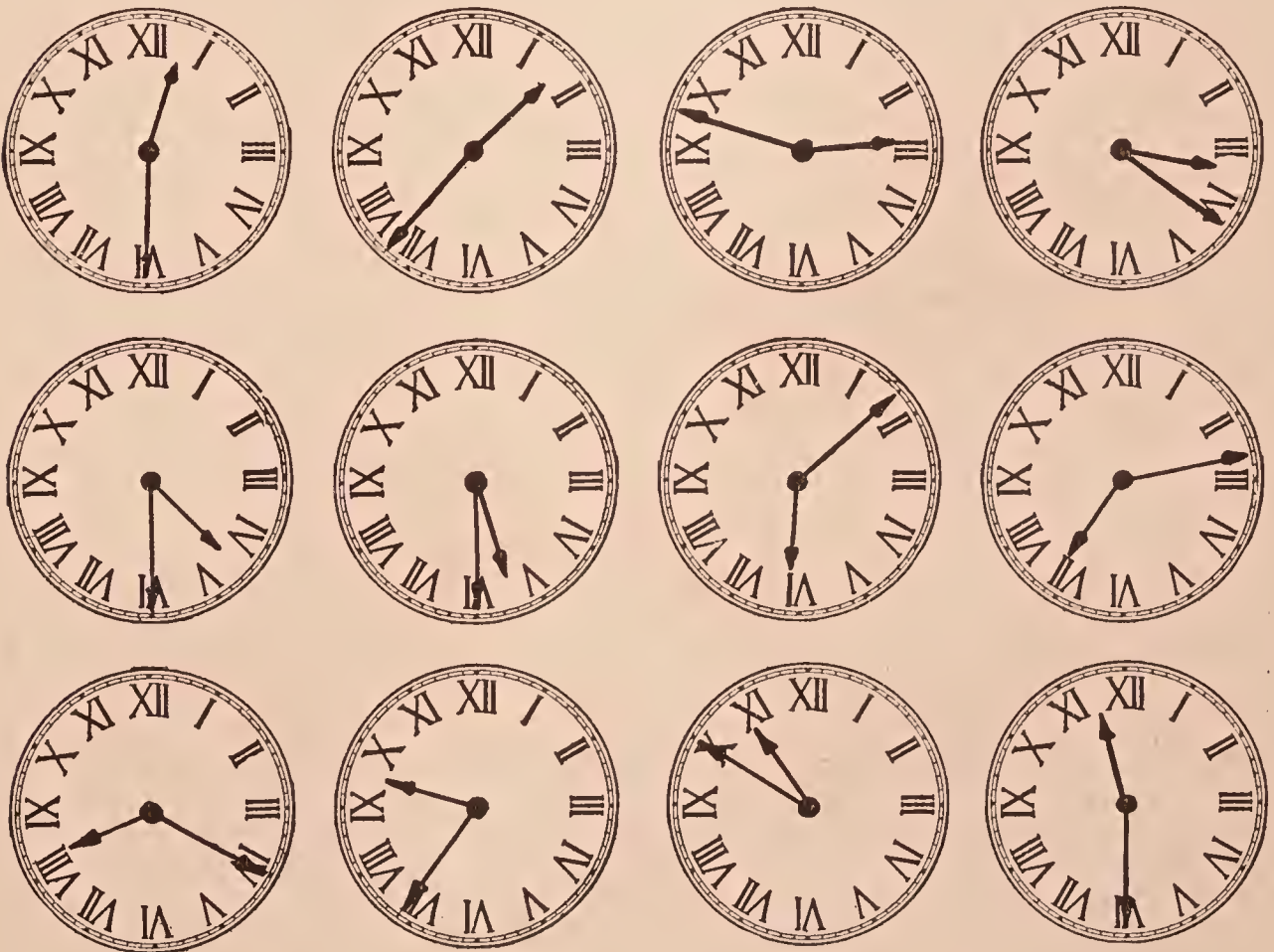
The mother makes use of this new knowledge by asking him to cut his apple into fourths and to bring her one-third of the spoons in the box (when there are



three in it.) She will ask, "How many halves in a whole?" "How many quarters in a half?" etc. But his first work will consist in becoming acquainted with fractional parts, visualizing rather than computing them.

THE CLOCK

As a preparation for reading the clock face the Roman numerals to XII should be taught. The Roman numerals IV and VI, also IX and XI, are easy enough when the child is shown that IV means 5 less 1; and VI means 5 plus 1. Also that IX means 10 less 1, and XI means 10 plus 1. There are only three



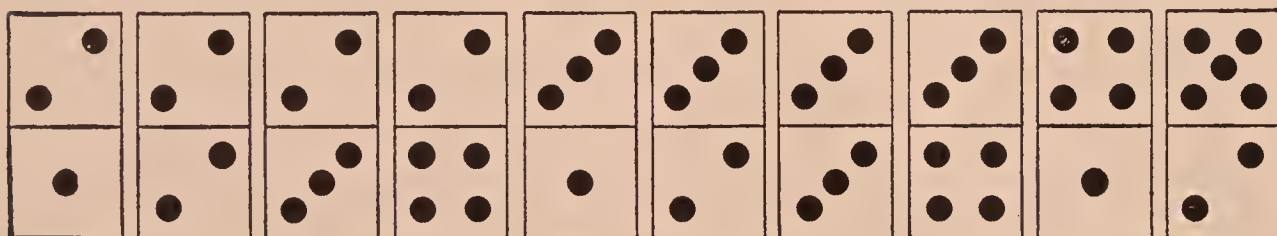
symbols to learn at first, I, V and X. XX would be 10 plus 10, of course, and XXX would be 10 plus 10 plus 10. Further than that it is not advisable to go for the present.

When the child has mastered the numbers, take the clock face and teach the hours. Show that from noon to supper is from twelve o'clock to six o'clock. He knows that, anyway, so it is merely a new form of expression. Then from supper to midnight, and from midnight to time to get up, will bring the larger hand around and around the face as many times as there are figures of hours to pass by.

SPEED AND ACCURACY

There are two things necessary in the manipulation of figures—speed and accuracy. The former would of course be of little value without the latter, but broadly speaking, it is the person who does a thing accurately and quickly who succeeds. The mother needs to have both of these in mind. As soon as the child knows the number facts he can be drilled for speed. For instance, if he is working on the forty-five combinations, referred to under "Addition" in this section, the mother will hold a watch and time him to see how well and how quickly he can say them. The number missed and the time should be recorded, and he should be encouraged to beat his own record. Or, he may be working on the table of fours in multiplication. This can be the basis of the same sort of game. Best of all, he will be getting this valuable knowledge in the form of play.

Games will do much to fix visualization. For example, the game of dominoes may be used to good advantage to teach visualization in groups to 6 and 12; also in the addition of all possible combinations from 0 to 1, 1 and 1, 1 and 2, etc., to 6 and 6. The child apparently sees only the dots on this domino, but in reality he spells "ten" when he sees them. This process is very essential in



fixing the habit of seeing and spelling the word "ten" when he sees 6 and 4 in any position, whether horizontal or vertical. He does not, or should not, say, "six and four are ten," but the sight of the two numbers spells "ten" just as

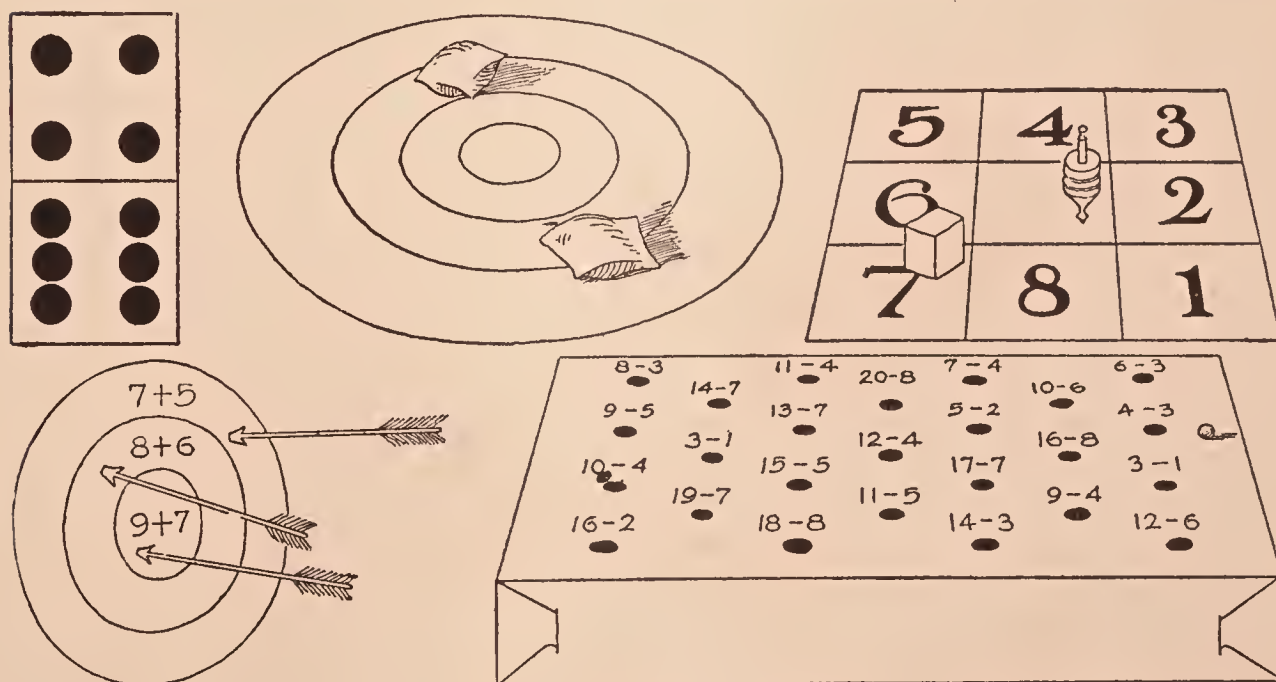
t-e-n would mean "ten." Of course, we do not here use the word "spell" in its usual sense; we mean the group of symbols visualized is promptly translated as "ten."

In addition to the usual domino game the dominoes may be used for number drill.

Bean Bag. Draw with chalk several circles within circles on the floor. If the child happens to be working on the table of fives, use that figure and its multiples as the circle values. If he is working on other tables, use those as a basis. If fives are used make the outer circle 5, the next 10, the next 15 and the center 15. Stand a certain distance from the circles and throw the bean bag into the circle. If it falls within the 10 circle he will mark 10 on his blackboard, etc. Let the child keep the score.

The Top Game. An entertaining game may be made from an old checkerboard, a top and a cube. Fit the board up with numbers cut from an old calendar. A light wooden cube, or a die, may easily be obtained.

The top is made to spin in the middle of the square. A cube is dropped on the top, which throws it upon some square. The number on the square tells



how much it counts. Thus, if the cube falls on the square 4 the first time and or 3 the next time, the total count is 7 on two throws. Take turns and keep score.

The Indian Game. Draw a large circle of cardboard, then draw circles within the circle. Write different combinations in each circle, as $8 + 6$, $9 + 7$, etc.

The child shoots with bow and arrow at the circle. His score will be the sum of the numbers within the circle he hits.

The Marble Game. Cut holes in the bottom of a large pasteboard box such as is used by stores for the delivery of suits. Above each hole write such combinations as 16-2, 18-8, etc. The child rolls marbles over this surface. His score is the number value of the hole into which the marble drops. Whoever first scores 150 wins the game.

The Race. Have a race to see who can give the answers on these circles the most quickly.

A box of toy money may be the next object to be introduced, and it opens up an endless vista of employment, entertainment and instruction. The first coins to be identified are the cent, the nickel and the dime. Show the toy money and then compare with real coins. If the child asks, he may be told the difference between "real" and "toy" money.

THE PLAY STORE

Arithmetic is of but little value to an individual unless it teaches him how to solve his problems. The practical applications of arithmetic are of two kinds—the application of the fundamental operations to any problem growing out of one's varied experiences, and the application of various measuring units to such concrete experiences. Arithmetic in its application is very largely a science of measurement as well as a science of computing numbers. At an early age the child should be taught how to measure. He may be taught the use of the foot rule and even of the yardstick. He may be taught, at least, how some things are weighed, how some others are measured in vessels, and others are measured with a ruler or yardstick. He may be taught how money is measured, for the values of the various coins represent measures.

To aid in the teaching of this interesting subject, the home should have a play store with real articles in it, and with money as the medium of exchange. Children learn to go to the store to purchase bread, cakes, sugar, and various notions. They enjoy playing store. They like not only to go to this store and make the purchases, but they enjoy still more being storekeeper. There is more responsibility in this situation, and children enjoy responsibility. Why? Because this is an attribute of adults, and children naturally enjoy the thought that they are almost grown up already, and should be learning how to do the things that grown-ups do. The store, of course, should be very simple and may be wholly make-believe.

A small stock of objects will do to begin with, such as bits of ribbon, nuts, apples, pieces of cloth, books, or the child may use his own toys. If he desires

a change, he can very easily make a grocery store by using his mother's empty cans and packages. Scissors, paste and the advertising pages of papers and magazines will aid him in this.

At first, children should be taught to make change in purchases up to ten cents. The child should be started right by being taught to count from the amount of the purchase to the amount of money used in the transaction, thus: A child buys a pencil costing three cents. In how many and what ways could he pay the amount? If he has pennies, how many will it require? If he has a nickel, how much change should he receive from the store? If he has a dime, in what form may he receive his change, and how much? Frequent concrete exercises will be needed, but such exercises are looked forward to with delight by the child.

CONCLUSION

In this article no attempt has been made to impose artificial barriers of age or grade, such as a declaration that a child should know the multiplication tables at the age of seven or solve problems in long division when he is in Grade IV. The schools, because they handle such large numbers of children, are forced to set standards of attainment for each grade. These in a sense include specific age, because of the provision of law affecting the child's entrance into his school life.

The mother in the home is not dealing with groups, but with the individual. Her problem is not to cover a certain amount of work in a prescribed time, but to proceed as rapidly as the ability of her child will permit. Because this ability differs in individuals, no standards of comparison should be attempted.

Mothers, all of this work outlined means time, patience, study, blended with understanding. But it is worth it. One day there came to you the most wonderful experience that ever comes to human beings, and you found yourself with a little baby in your arms. And as you looked at him through your happy tears you knew that all the dreams you had so long dreamed for yourself you now wanted to come true in the life of that baby, and you felt that no effort would be too great to bring it about. So you will be amply repaid for all the time and effort you spend in training him in these fundamentals by a realization that your activities have played a big part in helping him to understand, to appreciate, and more fully to enter into that wonderful experience called life.

The Making of Doll Clothes

BERTHA M. WHITE.

YOU all remember, I am sure, some picture of a little girl in pantalets sitting at the feet of her full-skirted mother and painfully pushing a needle in and out, in and out, of a long, long seam. It was a picture of home life many years ago. Every little girl of that time had to start in early learning her stitches, for she had a whole lifetime of sewing before her. There were no sewing machines then, for the time was nearly one hundred years ago, and sheets and pillowcases, tablecloths and napkins, towels, curtains, etc., to say nothing of dresses, underwear, fine-pleated or ruffled shirts for men of the family, maybe even their suits, had to be made by this little girl when she grew to womanhood.

So she began early, and practised every day; she learned every kind of stitch, and then she made a sampler. Perhaps you have one in your house, belonging to a great-great-grandmother. The little girl usually stitched all the letters of the alphabet, the numbers up to 10, maybe the design of a house and tree, her own name and age, and the date—all in the most beautiful stitches she could manage. Then her mother would boast of her to the neighbors, but never in the little girl's hearing; for now little daughter had proved herself diligent and dutiful, a credit to her family.

When the sewing machine was invented and factories began making clothes, little girls stopped making samplers, and some very unwise ones stopped learning to sew. I suppose the poor women were so glad to be rid of long seams that had to be sewed when a good story book or the beautiful out-of-doors was calling them, that they just threw up their hands and said, "Never again!" or some thing similar. But now the women realize that, even with the stores full of ready-made clothes, lots of sewing must be done. We must all mend and darn, if we are going to be neat, attractive persons. And if we are going to have pretty garments out of little money, we must be able to cut, baste, fit, sew and trim them. Now that the tiresome part of sewing has been done away with by the sewing machine, we get real joy from seeing pretty, useful things shape themselves under our hands. There is no joy equal to that of being able to do things, and do them well. There is no slavery like being helpless before such problems of every-day life as cooking our food, making our clothes and taking care of ourselves in every way.

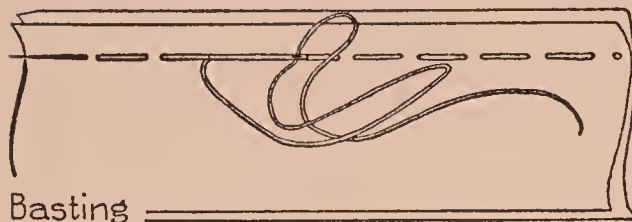
It is because we wish to be independent and to have the joy of "creating," that we are going to learn the stitches and how to use them on clothes and house-linens. Suppose we get some unbleached muslin, a pretty, cheap, cream-colored

cotton goods that is used now for everything from sheets and curtains to aprons and dresses. We'll provide ourselves also with some stout thread for basting, some finer white thread for sewing, a medium-sized needle, a thimble and some scissors.

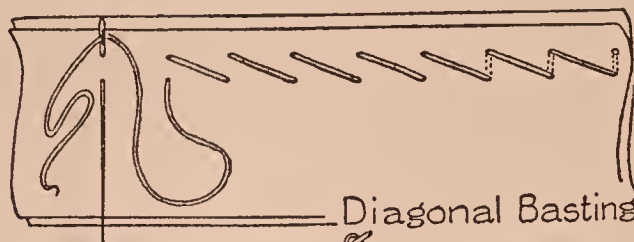
Now let us thread our needles and knot the thread. Do you remember the successful tailor in the fairy tale who always remembered the knot? Then we cut four oblongs, 5 inches by 8 inches, from our muslin, and learn the first stitch shown on the large chart panel, the basting stitch. We fit one oblong over another and baste the two together on one long side. We hold the two pieces in our left hand, the edges to be sewed lying over the left forefinger. We begin at the right, a half-inch below the edge, stick our needle in and out of the goods, spacing the stitches as evenly as possible and push ahead to the left. We may make the stitches long on one side and short on the other, if we choose; the main thing is to have the basting an even, straight line, for it is meant to be a guide line in sewing. We may now baste the other two oblongs together in the same fashion, and then we shall try the next stitch.

Let us thread our needles with the sewing thread, and knot it. This time we put in running stitches that will stay when we have pulled out the basting threads, or guide line. We make the running stitches exactly the same way as we did the even basting stitches, but we make them a good deal smaller, as the chart shows, and we fasten our stitching at the end of the seam by sewing two or three stitches over each other. The line of running stitches must be put in just below the line of basting stitches. Now we have the two pieces sewed firmly together, much as the machine would sew them; so we can spread open our pieces, flatten out the seam, and press it. We sew the other two pieces together in just the same way.

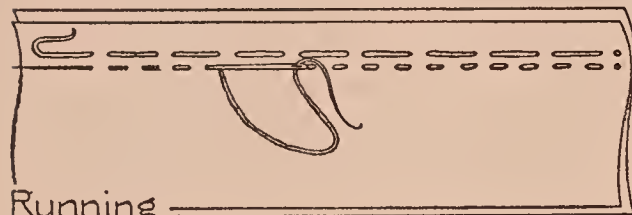
Now the idea strikes us that another seam, joining our two pieces of patchwork will make them into the top of a doll's bed quilt! We'll baste this long seam, of course, but instead of using the running stitch, we will try one that is firmer and much harder to pull out, although it is also much slower. That is the backstitch. We make one running stitch; then instead of moving the needle forward we move it backward, sticking it into the goods just about where it came out in that first stitch. Then we move the needle forward twice the length of the backstitch, pull it through, and backstitch again. On the side towards us the stitching will look like a continuous line; on the other side there will be two lines. If we decided to practice the half backstitch on the last half of the seam, we would merely backstitch only half-way toward the end of the last running stitch instead of backstitching the whole way. This will make our quilt have a very firm seam in the middle. We shall now use the backstitch after every third or fourth running stitch, when we are sewing seams, for the sake of firmness.



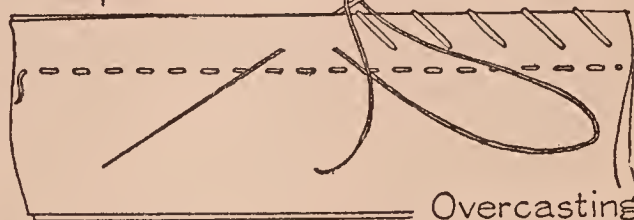
Basting



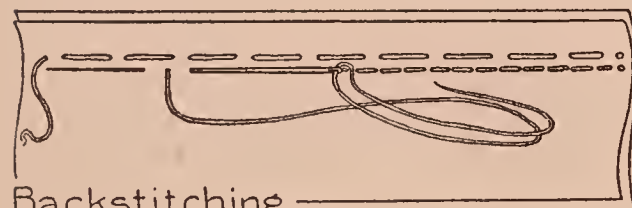
Diagonal Basting



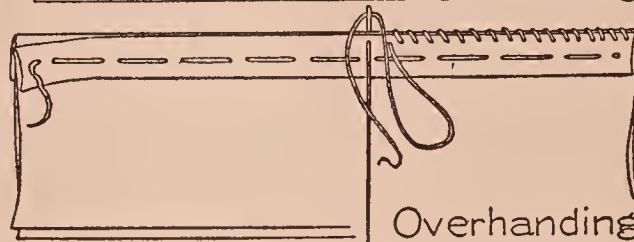
Running



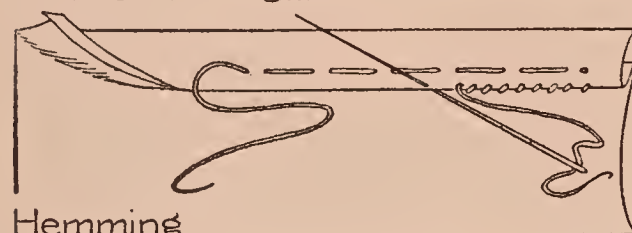
Overcasting



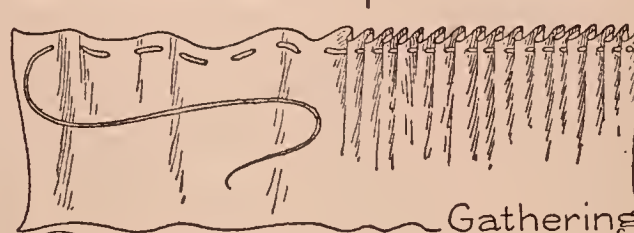
Backstitching



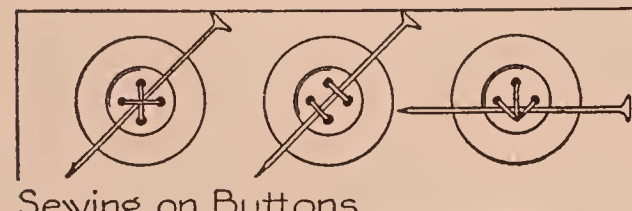
Overhanding



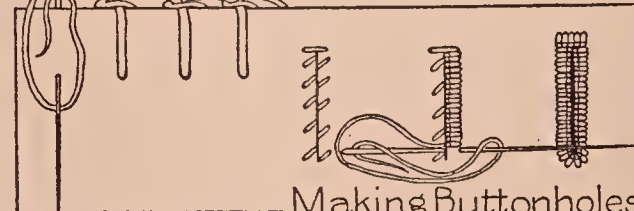
Hemming



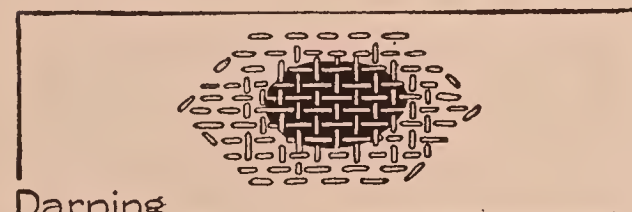
Gathering



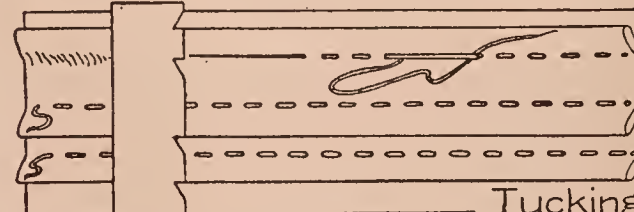
Sewing on Buttons



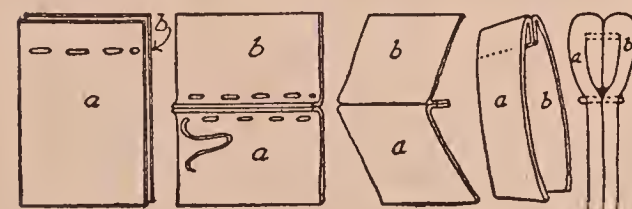
Making Buttonholes



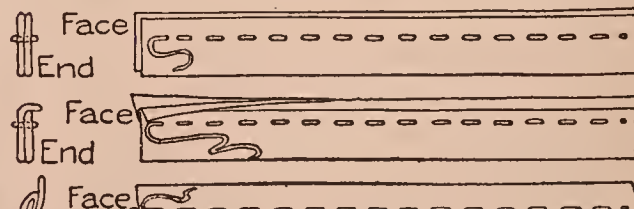
Darning



Tucking



Making a French Seam



Felling

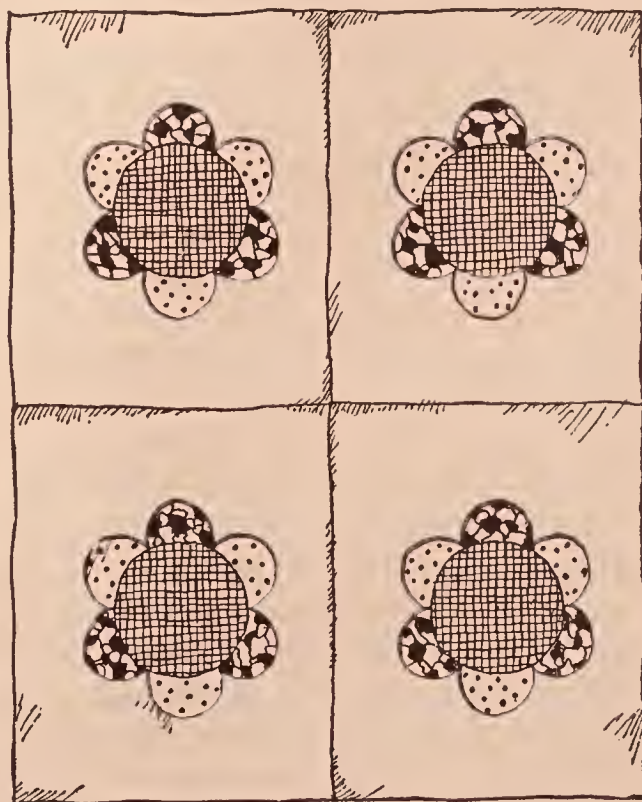
End

Face
EndFace
EndFace
End

We haven't by any means finished with our running stitch. Now-a-days we use it for outline embroidery. We are going to embroider our quilt top. With a tumbler we will trace a circle in the middle of each patch, and then scallop the circle prettily into a sort of rose design, as shown in the figure. With blue or pink cotton floss or wool yarn, we will outline this easy design in the running stitch. Then we shall have had a good deal of practice in that important stitch, with a pretty quilt top as our reward. There are any number of designs we might outline this way on bibs, towels, aprons, dresses, collars and cuffs. The charts on kites and flowers could give us some fine ideas for designs.

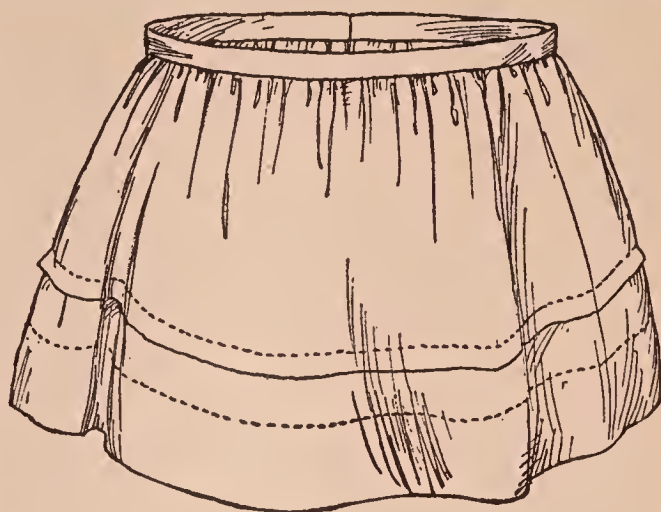
We shall now cut a piece of muslin exactly the size of our quilt top, and a thin layer of cotton batting a quarter-inch smaller all around. We turn in the edge of the quilt top and of the under-piece, put the two together with the cotton in between, baste carefully, and then use a new stitch for sewing the edges of the quilt together. That is the overhand stitch, shown on the chart; it is used always for sewing two edges together on the right side. We hold the edges evenly and firmly before us, between the thumb and forefinger, catch the two thicknesses with small but firm stitches, from back to front, slanting the needle from right to left. We might do it in the colored thread we used for the rose design. All we have to do after that is to "tie" our quilt; that is, to take one stitch with the colored thread quite through the quilt, every few inches down the seams, tying each stitch on top in a nice little knot with ends. And here we have a really useful sampler, with all the important stitches but one.

The important stitch is the hemming stitch, which we use in table cloths, napkins, collars, dresses, etc., wherever we have to turn in a raw edge to make one that will not ravel but look finished. An easy method is shown on the chart, and we would better try it on a piece of muslin, which creases easily. We fold the edge over one-fourth inch, then over again a half-inch, crease, and baste. We hold the hem firmly over our left forefinger, and take the first stitch to hide the knot under the hem.



THE BED-QUILT DESIGN

We point the needle upward at a slant, bringing it through two or three threads of the material under the fold, then through the edge of the fold. There will be little slant stitches on the seam side, and almost invisible ones on the other. We shall have to practice this stitch around two or three practice squares before we shall do it to our satisfaction.

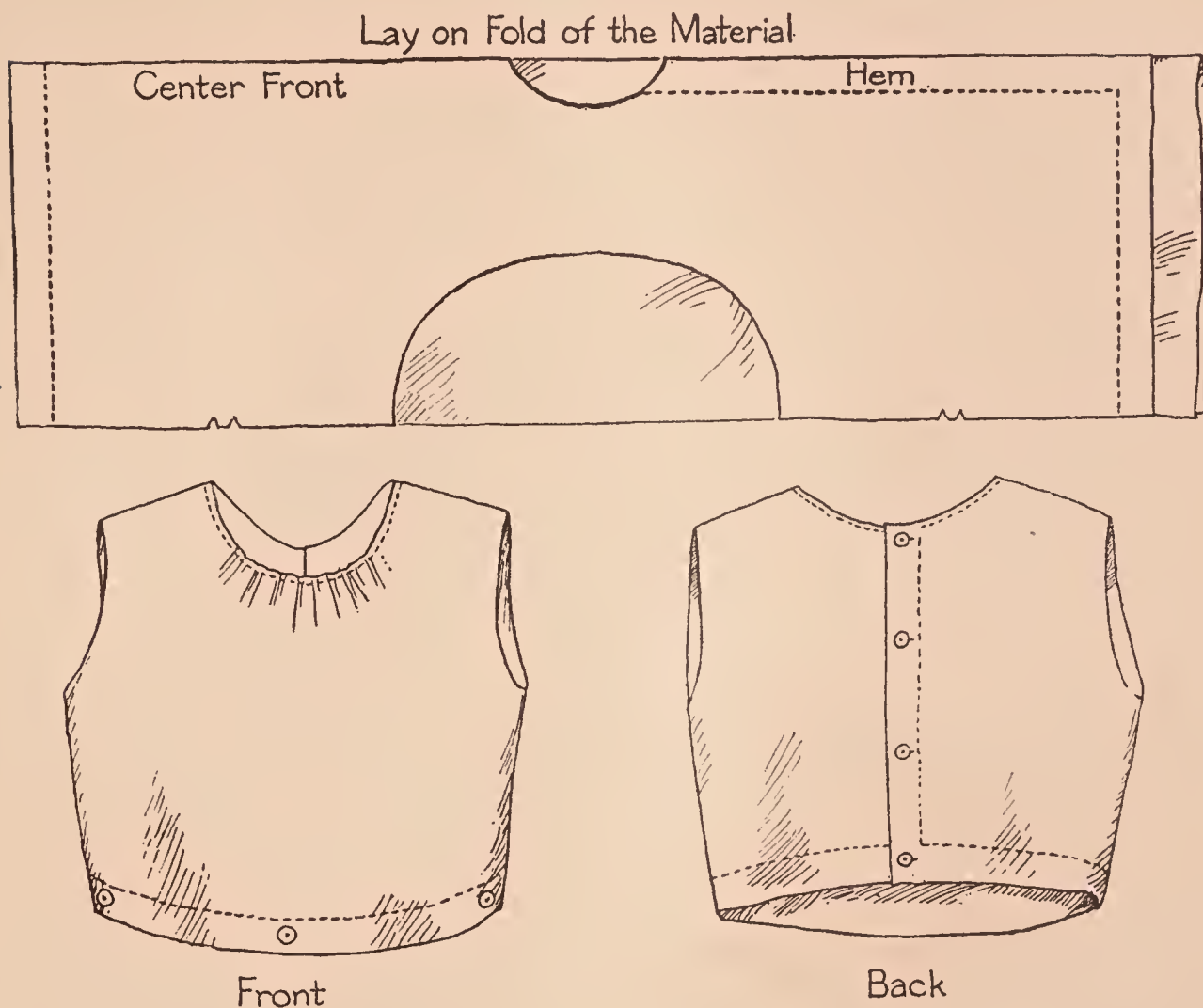


Then we are ready to finish our doll's bedding. We must remember that the sheets must be cut longer and wider than the bed, to allow for the hems and for tucking in. There must be an inch hem at the top of the sheet and quarter-inch hems for the other three sides. When we have hemmed two such sheets, we shall probably be able to make much more even and fine stitches than when we started. Here is a case where practice makes perfect.

Having made dolly's bedclothes, we might now start on her clothing. A petticoat is very easily made. We hem the lower edge of a straight piece of goods, the length of dolly from her waist to her dress hem, and wide enough to go twice around her waist. We could also overhand a little lace on the edge of the hem. Then we gather the top of the goods, using a loose running stitch and a double thread, and pushing the cloth back on the thread.

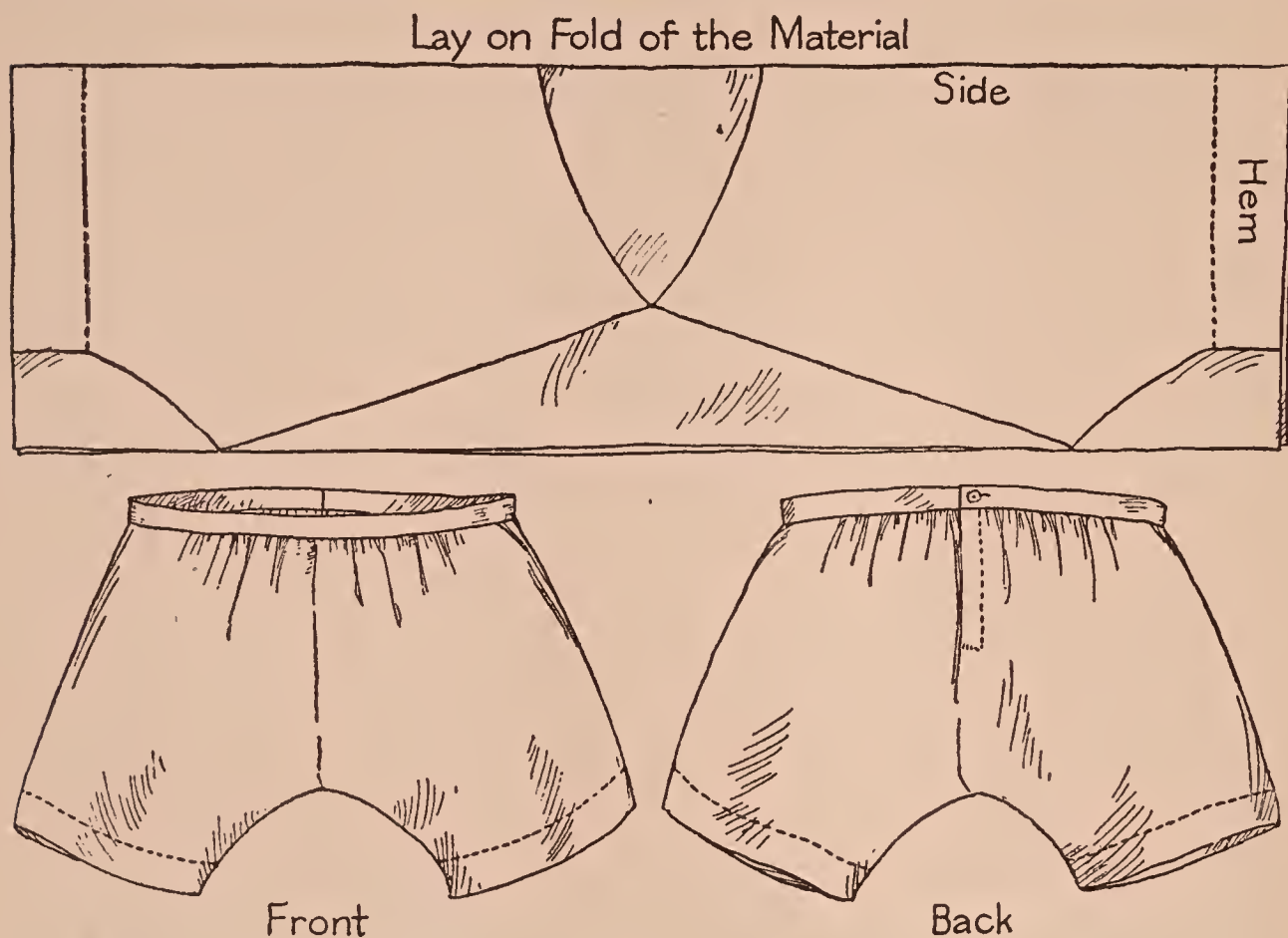
We have on hand a narrow strip of the goods, a little longer than dolly's waist measure. The lower edge of that we fold up a quarter inch and crease. We fit the gathered edge on that fold and then baste; then we turn in the top edge of the waist band a quarter inch, fold the band down so that the turned-in edge rests on top of the gathers and is even with the under side of the band. Then we baste and stitch; now all we need to do is to sew up a back seam in our petticoat, stopping about an inch from the band to allow for the placket. We shall make the simplest placket by just hemming carefully the two raw edges left. The fastening of the petticoat can be strings or snappers. If the petticoat is too long, or if we wish it trimmed, we can put in tucks with a small running stitch. The easiest way to make tucks equally distant is to measure with a marked cardboard the distance from the edge of one tuck to the edge of the other, crease, baste and sew the right distance from the edge of the tuck.

The two figures show how we can cut out an underwaist for dolly, and some panties. We shall cut some patterns out of paper first. Let us take note that



we fold the paper or the goods lengthwise so that we cut the two sides at the same time. There will be no seam in the front of either the waist or the panties, but we shall have to cut through the fold in the center back for the opening in the waist, and for the placket of the panties. We shall have to sew side seams in both garments, hem the neck, the armholes and the lower part of the waist, sew leg seams and side seams in the panties, hem the legs, gather the top and put on a band.

Now as we are able to do our work a little better, we are becoming dissatisfied with the raw edges of the seams we make with a simple running stitch. Of course we can overcast them, a coarse form of overhanding, as shown in the figure, but that is really done only on heavy wool or silk goods. We prefer to learn how to make the two neat seams that are called French and felled seams. We use those on all the nice underwear and pretty waists. The French seam



is simple and quick; it is really two seams, one inside the other. We sew the first one on the right side of the goods with the running stitch. Then we open the two edges flat, trim and smooth them, turn the seams over, and on the wrong side make a new seam right over the first one. This one we backstitch; the seam shows no raw edges. Neither does the felled seam, which has the added value of lying flat. It is also a doubly-sewed seam. First we baste the two edges together as for an ordinary seam. Then we cut off the edge of one seam side so that it lies a little below the edge of the other, spread out the goods, turn in the wider edge a little and turn it over the narrow raw edge, baste it and hem it. That, too, is a fine hem for underwear and shirts and waists.

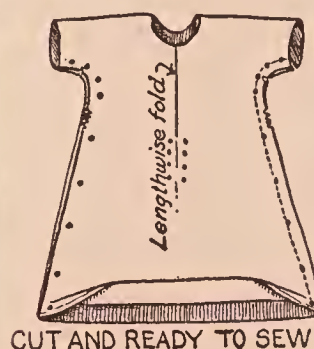
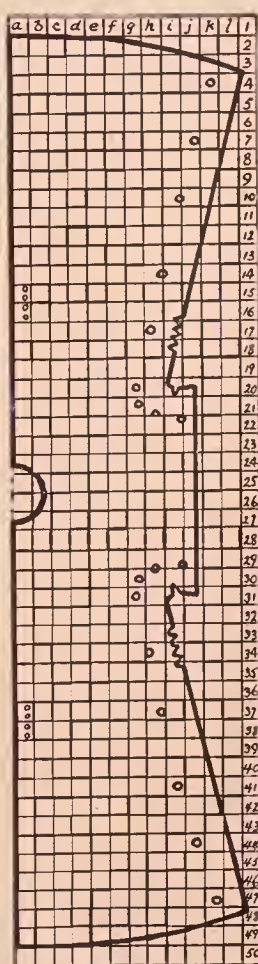
We have also discovered that in order to make neat garments for dolly, we must learn how to make button holes and sew on buttons. Buttons are easy, the chart telling the story. That pin over which we stitch our buttons on is to make the button sit so high on its twist of thread that the button hole will fit over it without drawing.

Buttonholes are a test of real skill, and must be practised very often. When

we have cut the slit for the buttonhole, we either overcast the edges or lay a couple of long stitches below either edge, in order to strengthen them. Then we use the buttonhole stitch, which is as follows: the needle goes in from the back, below the edge and is pulled through then the thread is thrown in a loop from right to left, the needle being brought over the top of the loop, back of the buttonhole edge, and through. This is continued, and a smooth edge that looks like crochet is formed. We are very fond of this edge for doilies and embroidery of all kinds.

When we have mastered these stitches, there is no end to the clothes we can make and the embroidery we can put on them. We can make pleats instead of gather in our petticoat-pattern, and have a sport skirt for dolly. If we put some short sleeves in the underwaist it will be a fine guimpe for a sleeveless dress,

The dress itself is so very easy, too. Here is that ever-useful kimona pattern, so delightful to cut and with only two seams to stitch. We can have sleeves in it, or not; without sleeves it will make an apron or overdress; with sleeves it will make a complete dress. We can cut it off short, without sleeves, for a chemise; long, with sleeves, for a nightgown. We can cut it up the back for buttons and buttonholes, pleat it, put a belt on it, or trim it with bands, tucks, lace, embroidery, etc., for pretty dresses. Dolly can soon have a full trunkful of clothes.



The Story of Birds

BERTHA M. WHITE.

THE most beautiful ornaments of this wonderful land of ours are the flowers and the birds. "Flowers are words which even a babe can understand," said a wise man. Even more dear to us are the birds,

"Whose household words are songs in many keys,
Sweeter than instrument of man e'er caught;"

for the most cheerful thing out of doors is a dainty bird pouring from its throat its glad, light-hearted song.

If we ask you, "What is a bird?" you will tell us that it is an animal with feathers, and an animal which flies. Your first answer is quite right, but your second is not wholly true, because bats fly, and the bat is not a bird; also there are flying squirrels and flying fishes, which of course look not at all like the birds. Then, too, there are some birds which cannot fly; among these are the ostrich, with its long neck and long legs, and the penguin, a strange bird that walks upright on strong, short "flappers" that look like feet and that balances himself by waving other wing-like growths on its sides. The home of the ostrich is in the desert and of the penguin in the cold regions near the South Pole. There are other strange birds, also, that cannot fly. Of these you will probably learn something when you grow older.

Already we have learned from these two birds last named that the bird family is scattered all over the world. You cannot go anywhere on the surface of the earth where they cannot be found, and no matter how far you are able to travel you may be surprised to know that most of them travel every year very much farther in single trips than man can possibly go, and very much faster, too. We shall tell you more about this later on.

THEIR SONG. Birds delight us by the beauty of their colored feathers, but even more by their song. Their colors please the eye, but even when they cannot be seen their song is a constant delight. Did you know that there are many kinds of birds that do not sing, but merely chirp? And that some of the plainest ones, those that really are not beautiful to look at, are the sweetest singers? Which would you prefer to have live in your yard—a bird of the most beautiful color that has no song or a little dark creature who could fill all the air around with a glorious melody?

Where does the song come from? Your voice comes from a voice box called the larynx (pronounced *lahr inks*), and your tongue helps to form the sounds you utter. It is not so with the birds. Their tone comes from a special little

organ in the throat called the syrinx (pronounced almost as though spelled *scer ingks*). It is the most wonderful music box in all the world.

You have noticed how loudly a little bird can sing. Just imagine how far you could be heard if your voice was as loud, compared to your size, as a bird's is!

WHAT BIRDS EAT. Some farmers do not like a good many of the birds because they eat growing crops and fruit. They see the damage done by the birds, but they do not always see that these same birds more than pay the farmer for all they destroy. There are more than 300,000 kinds of insects; not all of these varieties live in America, but thousands of them are found on every farm, and many are very injurious to crops. Without the birds many crops would be ruined each year. There are some kinds of caterpillars that in twenty-four hours eat more than a hundred times their own weight in food; one scarlet tanager, a beautiful red bird, has been known in eighteen minutes to eat 630 caterpillars. The tanagers eat a little fruit, but do you not think they earn it? There may be a million plant lice on a single tree; the birds destroy thousands of these in a single day. Army worms are dreaded by the farmers, and so are tussock moths and many small beetles, like potato bugs; birds eat these by the million; if they did not, our crops would not be half as large as they are.

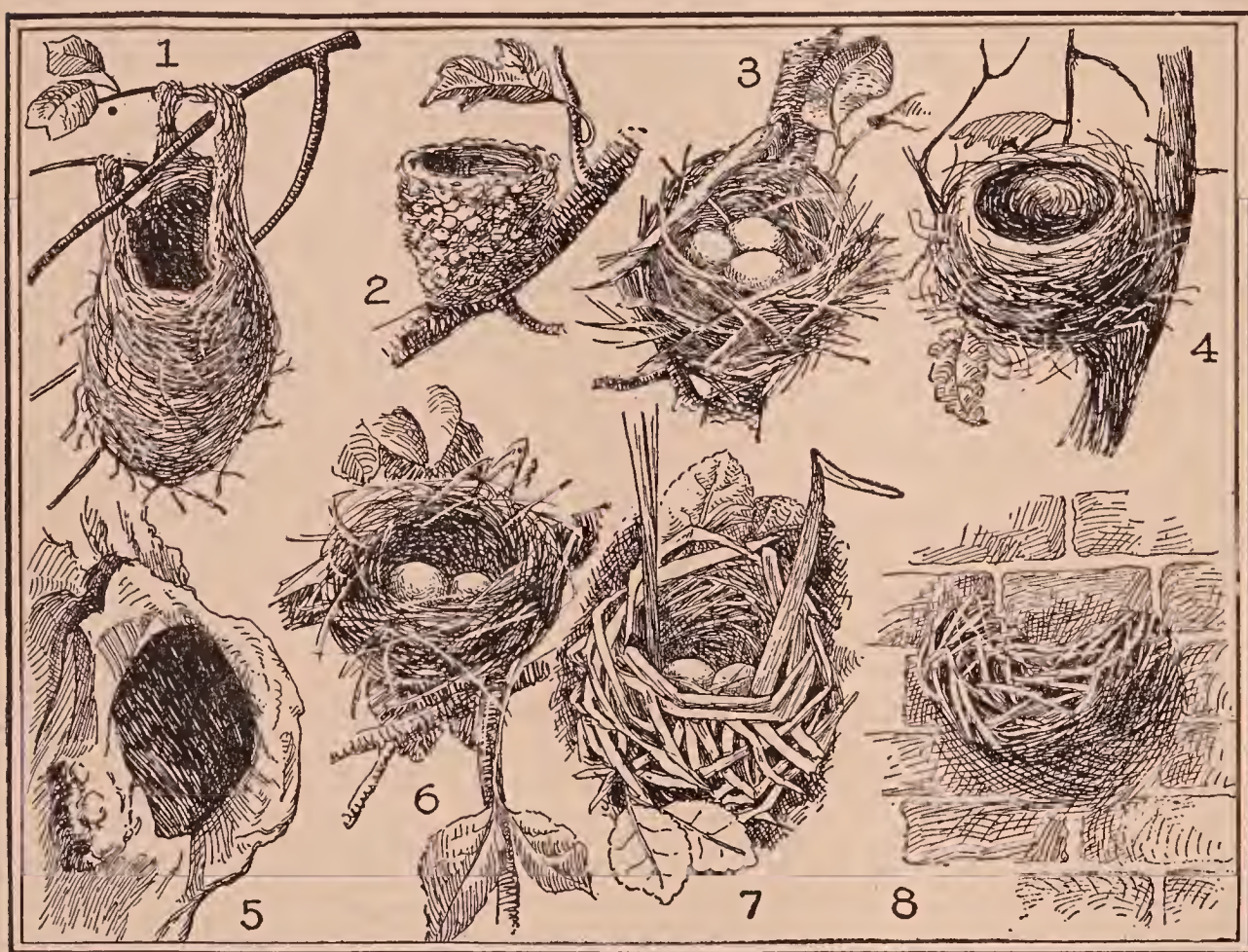
The rose-breasted grosbeak eats so many potato bugs that in some sections it is called the "potato-bug bird." One pair of brown thrashers will destroy 60,000 insects in one season; a dozen pairs of wrens and their young in a season will eat fully one hundred twenty-five pounds of insects. Can people not afford to lose a few cherries and other fruit in exchange for the constant warfare of the birds against these insect pests?

The stories about the quantity of food a bird eats may seem to you like fairy tales, but they are true. You have noticed that birds are always active—always flying or hopping about. You know that when you play hard you get very hungry. Birds are always hungry because of their constant activity, and their great problem is to keep supplied with food. Then, too, when the baby birds are hatched—from two to five in a nest—there are more hungry mouths to feed. Little birds grow very rapidly, and so they require a great deal to eat. Have you ever watched the mother and father birds feeding their young? Does it appear that the little ones ever get enough to eat? The heads of a bird family are about the busiest things out of doors until their young are able to hunt their own food.

When you were a baby your father and mother protected you with loving care. Bird parents show just the same attention to their little ones. They are tireless in bringing to them the almost unbelievable amount of food they require; they watch over them while they are helpless, and protect them even at the risk of their lives from all bird enemies; they keep the naked little bodies warm

until they are covered with feathers, and when grown strong enough they teach them to fly. Within a few weeks the little ones are on the wing, and soon they begin to prepare homes of their own. Some kinds of birds will raise four broods of little ones in a season.

THEIR NESTS. There are a few birds which do not build nests for themselves and their mates; two of the most important of them are the cowbird and



VARIETIES OF NESTS

- | | |
|---------------------|-------------------------|
| 1. Baltimore Oriole | 5. Wren |
| 2. Humming Bird | 6. Scarlet Tanager |
| 3. Robin | 7. Red-Winged Blackbird |
| 4. Goldfinch | 8. Chimney Swift |

one species of the cuckoo. The European cuckoo is not a bird you will like when you learn a little about it. It has no home; it will lay its eggs on the

ground and then carry them to the nests of other birds and expect the owners of those nests to hatch the eggs and feed the young when they hatch. It never deposits more than one egg in a nest; it thinks the owner will not notice one extra egg. The cowbird is like the cuckoo. It will not rear its own young; like the cuckoo of Europe it puts its eggs in the nests of other birds. Most birds will allow the cowbird's egg to remain in the nest and will hatch it, but later on in this story you will learn what the yellow warbler does to prevent being imposed upon.

All other birds build nests for their families. Some of these are soft and downy, being made of grasses and lined with feathers, little bits of cloth or down, while others are rough and coarse, constructed with sticks and stones and built high on rocks where enemies cannot reach them. The penguin lays its eggs on bare rocks. The only nest of the ostrich is a hole dug in the warm sand, where the heat of the sun hatches the eggs. One of the most carefully built nests is that of the oriole. It is from six to eight inches in length and is swung from a tree branch which is well protected with foliage. The oriole is a careful builder; it uses grass, string, hair, strips of bark, etc. Not all nests are made of the materials we have named. Some birds, among them the swallow, build of mud or clay; others, like the kingfisher, build tunnels into the bank of river or lake, with an opening near the water, and lay their eggs deep away from sight.

Many birds return to the same nest a second year, while others, like the robin, may keep their homes only long enough to rear one brood of little ones and then abandon it.

BIRD HOUSES. If you ever built a bird house in your yard and painted it nice and bright in red, yellow, green, white, etc., you probably wondered why the birds would not make it their home. Here is the reason: They did not like your bright-colored paint. They prefer dark colors, as near as possible to the color of the bark of the trees. If you will build your bird house in the fall and stain it a dark brown color by spring it will lose its newness and appear weather worn; then some of the earliest birds to come back for the summer will take possession of it.

A house should be about six by eight inches in size at the base and ten inches or a foot in height, with an entrance only large enough to admit the birds. For wrens, do not make the door large enough for the English sparrow to enter, for it may drive out the little wrens. Do not make it possible for cats or squirrels to climb up to the bird house, for they will try to catch the young birds. Set the house on a pole, where there is shade, and around the bottom of the pole put a wide piece of tin, to prevent any animal from climbing.

BIRD ENEMIES. We have told you about the millions of insect enemies of

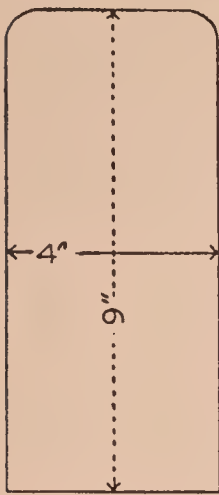


Fig. 1. Back

Bird House Made from $\frac{3}{8}$ " White Wood. Cut the six pieces as shown in the first five drawings, also a round perch.

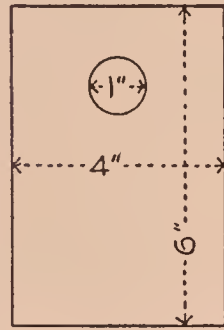


Fig. 2. Front

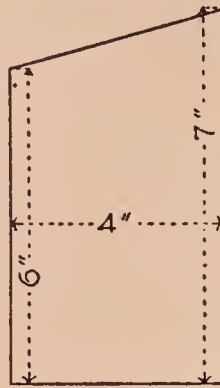


Fig. 3. Sides

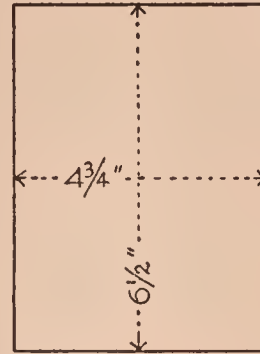


Fig. 4. Roof

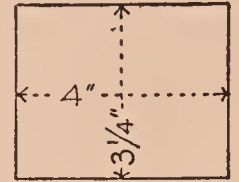


Fig. 5. Bottom

pieces together paint and decorate as indicated

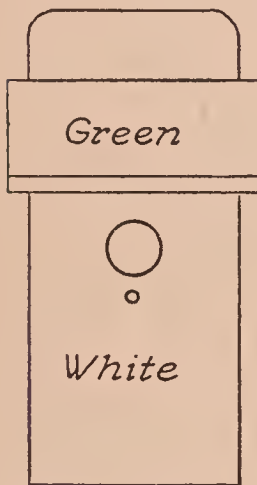


Fig. 7. Front

Fig. 6.
Perch, $2\frac{3}{4}$ "

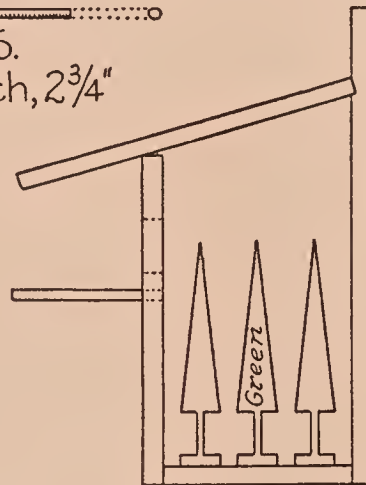
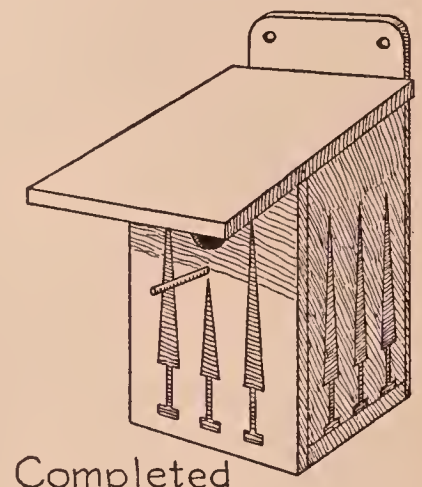
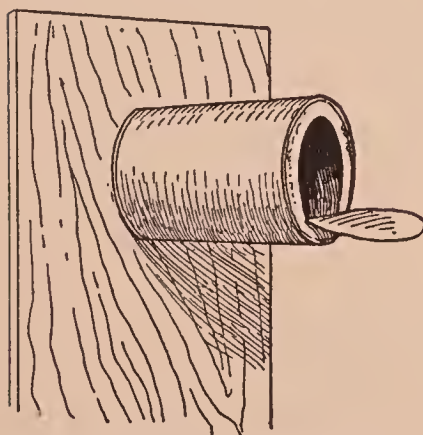


Fig. 8. Side



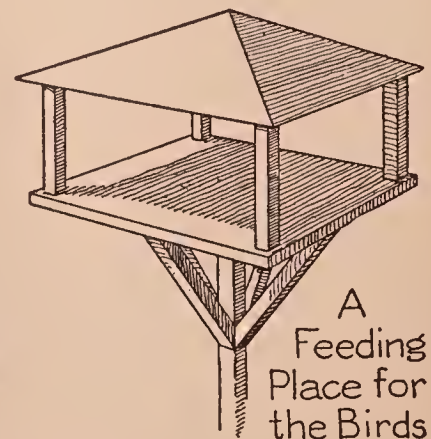
Completed Bird House



A Bird House May Be Made from a Vegetable Can Nailed to House or Tree



Made from a Wooden Pail



A Feeding Place for the Birds

HOUSES THAT PLEASE THE BIRDS

man that the birds destroy every year. There is another side to this story of destruction, for just as birds prey upon insect life, so larger animals make victims of the birds. A man who has studied birds all his life and knows what he is talking about says that every cat kills an average of fifty birds a year, but cats are not their worst enemy. Birds have most to fear from human beings—men and boys. Is this hard to believe? It is true, for men shoot birds, many of them for food and many just to satisfy their desire for what they call sport; and boys, we are sorry to say, try to hit them with air guns, slingshots, stones, etc. You never knew a girl who would injure these cheerful, singing feathered friends of ours; boys should follow such good examples.

Next to men and boys, cats and squirrels, the birds suffer from heavy storms and cold, accidents, snakes and other animals, such as skunks and weasels.

BIRD MIGRATIONS. Where do birds go during the cold northern winters? You have noticed that about the same time early every autumn you miss their cheerful songs, and soon after the first of October only a very few are to be seen. The junco, or snowbird, the tree sparrow, the brown creeper and a very few others are bold enough to stay with us all winter. (Do you throw crumbs to them when the ground is covered with snow? If you do, they will be regular visitors to your door.) All others disappear. They do not leave us merely on account of cold weather, for we know some birds stay north all winter; they migrate largely for the reason that they must go where food is plentiful. Most of them would starve to death during the cold months in the north. When they return from their southern winter homes you will notice they are strong and fresh from abundant feeding in the tropics.

Many of the birds are with us all summer, and you are acquainted with the commonest of these. There are others which pass us by every spring and go far north into Canada to spend the summer around Hudson Bay and near the Arctic Ocean. All of the local birds and those from the far north take wing in the fall and fly straight to a warm climate. Many stop around the Gulf of Mexico, others stay in Mexico, but the great majority fly into the northern part of South America, many species even crossing the equator and wintering south of the Amazon River. One bird, the yellowleg, is among the greatest travelers of them all. During the summer he enjoys the climate of Northern Canada; when he is warned away by the approach of frost he flies 8,000 miles, to spend the winter down in Argentina, in the southern part of the South American continent. In the spring he starts back on the return trip of 8,000 miles; so this little fellow travels 16,000 miles a year on his migration. Snipe and plover breed near the Arctic Circle and in the fall they, too, go to the southern end of South America.



DIRECTIONS OF MIGRATIONS

On their trips south in the fall most birds are not noticed in their flight; some fly very high, and others go in small groups—even singly; some species are night-fliers. You can, however, note the flight of the ducks and their peculiar formation as they fly—in the shape of a great wedge, with the leader in front. Very few birds fly continually in their migration. They often stop for days or weeks on the way, feeding wherever they find anything inviting. For instance, the bobolinks stay for weeks in the ricefields of South Carolina, where they are disliked and are called ricebirds. However, some birds, like the golden plover, start on a flight from Nova Scotia over the Atlantic Ocean and for many hundreds of miles remain on the wing,

resting only on the West Indies islands before reaching the shores of Brazil.

When they return north in the spring, birds will repay watching. If you will keep a record you will find that some species will be seen in the trees in your yard during the same week year after year, and that some of them may fly straight back thousands of miles to the same nests they occupied the year before.

BIRDS YOU OUGHT TO KNOW

On our colored chart are a dozen pictures of birds about which every boy and girl should know. We shall tell you many things about them here; will you not try to learn more from father and mother or from your teacher or other older friends? Birds should interest you all your life.

When we go for a walk, we enjoy it more if we know the people we meet. So we shall enjoy the outdoors more if we know the birds we see and can recognize their songs and calls.

THE ROBIN. The robin is one of the best known and best loved birds. When we hear his cheerful song some morning in early spring, we hasten to the window to see him. We feel more certain that spring is really here, when we find him on our lawn.

He runs along the ground, stops and listens with his head cocked on one side, runs again, makes a sudden dive with his bill, tosses the dirt up, keeps working and tossing and soon he is tugging and pulling at an angle-worm which he has part way out of the ground. How did he know the angle-worm was there? I do not know. I saw one pull so hard that the worm came in two and the robin stumbled backward. He seemed a very surprised bird.

Even the best of birds may have some faults. Some folks say that the robin steals their cherries. Those folks do not know that if the robin had not been protecting our cherries all the spring by killing the bugs and worms on the tree, there would be no cherries for anyone. He probably thinks he has a right to some of the fruit he saved; do you think he earned it? Robins are very fond of mulberries; if we plant a mulberry tree, the robin will eat fewer cherries. They live mostly on insects and wild fruit.

In the Northern states we are very fond of the robin and he is protected by law. When he has finished raising his family here, he goes south to spend the winter. Instead of living about the homes and cheering people with his song, he stays back in the woods, stuffing himself with rich, druggie berries. In some states where they are not appreciated robins are killed for food. Do you not hope they will grow fond of him as we are and pass laws to protect him?

The robin is ten inches long, dull brown in color, with a bright red-brown or russet breast. The male has a black head. The female has a gray head and a paler breast. The young robins have a breast spotted with black. Notice the flecked or speckled throat on all of them. That is the mark of the thrush family, to which robins belong.

Robins are not much afraid of people, and often they build their nests near houses. One built its nest over the door of our house; one built on a hayrake that stood in the barnyard. Do you know what robins use to make nests? It is made of mud and grass, so it isn't a very handsome nest. They usually build on a horizontal branch or in the fork of a tree often quite low down. Like many other birds, the mamma robin likes to build the nest herself. You see she has to sit in it, so she knows just how she wants it. Anyway, both birds bring material for the nest, but if papa robin tries to lay it in place, the mother bird becomes very angry and flies at him and drives him out, just as though he had no business there.

In the nest the mother bird lays four or five blue-green eggs, and in a few weeks the baby robins, big-mouthed and hungry, are hatched. Have you watched the old robins push the little ones out when it is time for them to learn to fly? Often the nest is abandoned as soon as the young have become independent.

While robin is a very peaceable bird, one writer says it can "scare an English sparrow with one flirt of its tail."

THE BLUEBIRD. The bluebird arrives with the martins and the pussy-willows frequently ahead of the robin, sometimes as early as the third week in February. We like him because he is so friendly, sings so cheerily and sweetly, and because he looks like a bit of the blue spring sky.

Lowell calls him an "April poem that God has dowered with wings." One writer says it seems—

"When 'mid the budding elms the bluebird flies,
As if a bit of sky had taken wings."

The male birds, like the males of most bird families, arrive a week or even ten days ahead of the females. There may be deep snow after these first birds come. It is a good idea to scatter some crumbs every day; that will keep these early visitors from starving and help persuade them to stay and build in our yard.

Bluebirds like to be near folks. They will nest in the orchard or garden, or in houses put up for them. Unfortunately the bluebird and English sparrow are about the same size, and the sparrows often take possession of the houses put up for bluebirds. If it is a very desirable location, the bluebirds may fight the sparrows and, unless there are too many of them, drive them away.

Watch them when they are building their nest and you will see that the male bird brings material and waits outside the box until the mother bird comes out. Then he goes in and lays it in place. Probably she lays it over to suit herself after he has gone.

The nest is lined with grass. There are four or five pale bluish eggs.

The bluebird's call is a short, sweet warble, and the song is the warbling continued. Do you know the verses, "I know the song that the bluebird is singing"? Perhaps you sing them at school:

"I know the song that the bluebird is singing,
Up in the apple tree where he is swinging.
Brave little fellow, the skies may be dreary,
Nothing cares he while his heart is so cherry.
Hark! How the music leaps out of his throat!
Hark! Was there ever so merry a note?
Listen a while and you'll hear what he's saying,
Up in the apple tree swinging and swaying,
'Daffodil! Daffodil!' Say, do you hear?
Summer is coming and springtime is here!"

The whole seven inches of him fairly bubbles over with joy.

THE YELLOW WARBLER. There are some thirty varieties of warblers in the United States, most of which winter in South America or Cuba and nest as

far north as Canada. Some few of them, among them the yellow, stay with us through the summer and raise their families here. The others travel in flocks, passing north in May and returning south in September. One morning in the fall you may go out and see a great many of them; the next morning there may be none at all.

The male yellow warbler has chestnut streaks on the sides; the female is duller and without the streaks. They appear in early May and, darting after insects, look like a gleam of sunshine.

The nest is made of plant fibers quilted together, and is fastened to upright forks of bushes or trees, usually quite low down. All warblers lay four to six white eggs, and with the exception of the Swainson warbler, which nests in the Southern states, the eggs are spotted with brown and chesnut blotches.

Warblers eat plant lice, leaf hoppers and all sorts of leaf worms, picking them from the leaves of trees and shrubs. A few warblers catch their food on the wing. The oven-bird is a warbler which nests on the ground. The yellow-breasted chat and the black and white creeper are warblers. Have you seen the creeper creeping around tree trunks hunting insects? Unless you look carefully you might mistake the yellow warbler for a goldfinch, but the goldfinch has black wings and tail and a black topknot.

One of the most interesting things about the warbler is the way it outwits the cowbird. The cowbird is related to the blackbirds and is a bird tramp, lazy and without a home. It deposits its eggs in the nests of any small bird. The young cowbird will be larger and stronger than the little birds in whose home it is, and so will be able to get most of the food brought by the parent birds. The birds which really belong in the nest are crowded out or nearly starved. Young cowbirds do not learn to take care of themselves as early as most young birds do, so the parent birds are kept feeding the interloper so long that often they do not have time to raise a second brood.

The yellow warbler has no notion of being imposed on in that way. So when she comes home and finds a large cowbird egg among her own she simply builds another bottom in the nest, covering the cowbird egg. Then she lays fresh eggs of her own. If a cowbird lays another egg with these, the parent bird will make another partition. Sometimes she makes as many as three. How do you suppose she knows that that egg will hatch into a big greedy bird that will take the food from the rightful owners of the nest?

The warbler's song is only a warble, hardly a song at all. Its call is a sharp "Che-wee, che-wee che-wee." This warbler is sometimes called the "yellow bird." It winters in Central America, and is a small bird to travel that long distance.

THE RED-WINGED BLACKBIRD. Early in March, before the oriole arrives,

you may hear "O-ka-lee," or "Conk-err-ee," as it sounds to some people. Then you know that the red-winged blackbird is with us again. The male is a brilliant black, with shoulders of scarlet and buff; the female is a brownish-black above and streaked below. He is quite dashing looking; she is quite plain. They are about nine inches long.

Blackbirds are sociable birds, and live in colonies and travel in flocks. Sometimes they gather in the trees and hold a concert, singing with all their hearts a chorus of liquid sound.

Half of the blackbirds' food is weed seed, one-fourth beetles, grasshoppers and other insects. Red-wing also eats army worms, wasps, flies, spiders and bugs, and when he is migrating in the spring and fall he may eat a small amount of grain.

It is a pretty sight to see the flocks go by, especially in the fall. Did you ever try to count how many you could see? Sometimes a stretch of sky is fairly black with them, and how they sing as they fly!

The nest of redwing is well-woven of grass and rushes, and partially suspended from the rim. Redwing is a cousin of the Baltimore oriole. In the nest are four or five light blue eggs, marked with purplish-black.

Other members of the family are the meadow lark, grackle, yellow-headed blackbird and bobolink. The grackles strut about so dignified and lordly that it is fascinating to watch them. The purple grackle is especially brilliant, combining violet, purple, green, and steel-blue in his coloring on neck and wings.

The yellow-head is found on the western plains and seldom seen in the central states. His head, neck, breast and throat are bright orange-yellow. Someone called him:

"Fire-bearer of the gods, blue-black,
With flecks of sunshine on thy back."

THE WREN. The wren is often called a saucy bird, because it holds its tail erect and flirts it so impudently. The wren is smaller than the English sparrow, measuring four and three-quarters inches. It is brown above, light brown or dull gray below, with tail, wings and flanks barred.

Wrens like to build near the house, and will use any house put up for them. It is a good idea to make the wren house small, with an entrance so small that the English sparrow cannot get in.

The male bird arrives first. If there are several boxes on the premises, he carries twigs into all of them. Gene Stratton Porter, who has studied many of them, says that this is because all the boxes are much too large. The male fills in between the door and the space needed for the nest, then when the female

arrives she selects the location she likes best and the nest is built in that box. You may often see a wren trying to drag in at the tiny door of the house a large branched twig much too big to go in. He does not give up easily, but pulls and tugs and comes back to it again. Sometimes you can help him by breaking the twig so it will go in. The nest proper is made of grass, hair and down and often chicken feathers. Wrens have been known to build in the pocket of an old coat left hanging outdoors, or in any crevice in boards. There are six to eight white eggs, thickly speckled with pinkish brown.

Wrens which are disturbed become small furies. They will fly directly at anyone or anything which molests them, keeping up all the time an angry chatter which sometimes becomes so violent that it sounds like real scolding. Unless the sparrows are too numerous, wrens will drive them away.

Wrens sing all the time, rain or shine. I do not think anyone has tried to imitate the wren's song. It is just a jumble of loud, clear, bubbling notes. Unlike most birds, wrens still sing when nest-making is over, and they retire to the woods to moult.

Insects form almost ninety-eight per cent of wrens' food. The baby wrens eat almost as much as any other little birds. In one case when the mother bird did all the feeding, she made one hundred and ten trips to the nest in four and a half hours, carrying an insect each time.

THE BARN SWALLOW. Swallows have been called the "light cavalry of the bird army." They live almost wholly on insects. Their long, pointed tails enables them to turn quickly, and they can catch their food on the wing. They are the only birds which can catch the swift-flying dragon-flies.

All swallows have short, broad, deeply-cleft bills with which they catch the insects. They fly with their bills open, their saliva is sticky, and once an insect gets in a swallow's mouth there is no chance at all that he will get out. When a number of insects have been caught, the bird rolls them into a pellet and swallows them. The barn swallows' special food is flies. They also eat many ants, catching the winged females before they have an opportunity to found new colonies.

Barn swallows are only a trifle larger than English sparrows, but their long wings make them appear larger than they are. They are the most graceful and beautiful of the swallows. They are distinguished by bright brown markings and a deeply forked tail. Notice the white spot on all the tail feathers except the middle pair. The female is duller in color than the male, and her tail is not so deeply forked.

They build inside of buildings, on the beams and rafters. The nest is bowl-shaped and formed of pellets of mud stuck together with saliva and lined with

feathers. It is stuck to the rafters and open at the top. There are five to seven white eggs, dotted with reddish brown.

The purple, or house, martins are another species of swallow which will stay around our homes if we put up boxes in which they can build. They are the largest of the swallows, a beautiful glossy black with purplish tints, and they are most sociable, often building close to homes. They live generally in colonies; that is, several families will build in the same house, if it is divided into several rooms each with a separate opening—a bird apartment building. The house should be placed on a pole ten or fifteen feet high.

Tree, or white-breasted swallows, which we often see on telegraph wires, and bank swallows, or sand martins, are two other very interesting members of this family.

The swallow's graceful, easy movements and the fact that it is almost always on the wing causes one writer to address them, "Is it far to heaven, O swallow, swallow?"

RUBY-THROATED HUMMING-BIRD. There are more than a hundred species of humming-birds, but the ruby-throated is the only one which comes outside of the tropics. Their name comes from the hum made by the vibration of their wings, which move so fast that they can hardly be seen when in motion. "Jewels of nature" is the fanciful name given them because of the ruby-red throat and shining green back.

Ruby-throat is three and three-quarters inches long, although it looks smaller. The long bill is formed to dip deep into flowers and extract the honey and the insects found feeding there. The long-throated trumpet flower is a favorite feeding place. Humming birds are so small and sphinx moths are so large that the moth is often mistaken for the bird.

Humming birds are quite tame. They dart about quickly, but this is in pursuit of the nectar they are gathering, not because they are afraid. They often fly into houses. They do not like anyone near their nests, and will dash at intruders with angry squeaks.

The nest is placed on a small limb which may be no larger than a lead pencil. It is shallow, and about as large around as a silver dollar. The outside wall is usually made of lichen, bound on with cobwebs. The nest is lined with the soft velvety down from the inside of a chestnut burr, if there are any to be found in the vicinity. The small size and the lichen covering make the nest look like a knot on the limb, or like a tuft of moss. Do you suppose the bird knows that the lichen makes the nest difficult for a person to see? Did you ever find a humming bird's nest?

Our common swifts belong to the same family as the humming-birds, not to the swallows.

THE SONG SPARROW.

"Now, see if you can tell, my dear,
What bird it is that every year,
Sings, 'Sweet, sweet, sweet, very merry cheer'!"

Someone else thought he was sayng, "Fitz, fitz, fitz, we, we-sir, sir-witz, witz." Whatever he is saying, he is singing sweetly and continuously. "Master singer of the winter woods," he has been called. The song resembles that of the canary. He is probably the best known, most abundant and most widely distributed bird we have.

One-seventh of all the birds in the United States belong to the sparrow family. There are more than thirty species, and all except the English sparrow are counted among the goods birds. The English sparrow eats many weed seeds, but it is so quarrelsome and so numerous that it drives away birds we would rather have near us, so most people think it is best to get rid of the English sparrow.

Many sparrows stay with us all winter, but most of them go farther south. All sparrows are dusty brown, and are streaked with gray; all of them eat many weed seeds and some insects. Sparrows have strong, conical bills with which they crack the shells of the seeds. Dr. Beal of Iowa estimates that the sparrows of that state eat 875 tons of weed seed every year. Sparrows fly slowly and heavily, quite unlike the quick graceful flight of the swallow.

Song sparrows nest in vines and shrubs about the yard, or in low bushes along creeks and rivers. You may have seen them running through the grass looking like small mice. They probably were hunting ground beetles, grasshoppers, or grasshoppers' eggs, which make up about one-fourth of their food. In the nest of grass you may find three to five blue-white eggs spotted with brown.

Other sparrows are the field sparrow, which has a reddish bill; chipping sparrow, sometimes called the hair bird because it lines its nest with hair; and the tree sparrow, which is found only in the Northern states. Juncoes, snowflakes and snowbirds are sparrows which live in Canada, and visit us only in the winter, when our sparrows have gone farther south, where they can be more sure of finding plenty of weed seeds not covered over by snow.

Because sparrows are found all over the country, they are one of the birds with which we compare other birds in estimating size. The song sparrow is six and a quarter inches long.

THE BALTIMORE ORIOLE. The Baltimore oriole is seven and a half inches long, about four-fifths the size of a robin. The male has a brilliant orange

breast, rump and tips of the outer wing feathers. Lowell calls him a "glance of summer fire." The female is dull gray and yellow.

Orioles like to build their nests as near as possible to a house. They eat little fruit, but will keep our trees free from hairy and tent caterpillars, gypsy moths, coddling moths, plum curculios, tussock moths, browntails and plant lice. They also eat squash and cucumber beetles and in the south the cotton boll weevil. So you see that they are very valuable birds.

Do you know what the nest looks like? It resembles a short, deep hammock hung out on the end of a limb. It is made of string and plant fiber, and if you leave a bit of bright-colored yarn out in the yard, I suspect you will find the oriole has woven it into its nest. The birds collect string and fiber and hang it over a twig, fastening it so it will not blow away. When they think they have enough, the female pushes her way into the middle of it, and begins to push it out and bind it together and fasten it strongly to the twigs and small limbs. They use real knots to fasten it. The male all the time during building brings more material. When the hammock is finished, the real nest of moss, wool, down and hair is built inside.

As you can see by looking at an oriole's nest, the mother bird sits away down in the bottom, where she can get no air and cannot look out. Gene Stratton Porter tells of an oriole which built a window in her hammock. She is sure the bird did it on purpose, because she started one, found it would be too high, so left it and made another lower down. In the nest the oriole lays five or six white eggs, marked with blackish brown.

The oriole has a sharp, clear whistle which is unlike that of any other bird. Its song is appealing, and it sings freely. Orioles sing and chatter all the time. I think they tell one another what a good time they are having, and what a pretty color this string is, and how fine it will look woven in just here, and how the children are getting along, and whether they have their eyes open. And the baby birds chatter away—all day and into the night. I think they must talk in their sleep, because you will hear chirps and peeps very late, long after they should be asleep.

Orioles winter in Central America. Other names for the Baltimore are golden oriole, gold robin, hang-nest, English robin, and fire-bird. You can see why they are called by each name. Orioles belong to the blackbird family.

There are many pretty poems about the oriole. Here is an old verse:

"Of all the weavers that I know,
The oriole's the best;
High on the apple tree he weaves
A cozy little nest."

THE BLUE JAY. The blue jay is so attractive-looking and so persistent with his rollicking good humor and his friendliness, that we make excuses for him. He needs to be excused, because he is ill-mannered, noisy, quarrelsome, thieving. He destroys the eggs and young of other birds. He takes their food and nesting material. Even his harsh call, "Jay! Jay! Jay!" sounds antagonistic. He looks as though "he would not avoid trouble if he could." He likes to imitate the call of a sparrowhawk or redshoulder and throw the whole bird community into hysterics of fear. This may be high spirits, not bad temper, but birds, like folks, should consider the consequences of their jokes and not make things too unpleasant for others. His blue coat and his call at once suggest the name that was given him.

Jays are sociable. After the nesting season is over, you may find a group of them gathered together in the tops of the trees, calling and talking and screeching. "Ge-rel-lup" is about the way the three-note call sounds. When the mother bird is brooding the male watches over her and sings to her, and he is a good provider of food for the babies. He is not harsh to them, but kind and gentle, singing softly, instead of making his harsh, discordant sound. His long tail keeps him from traveling well in a high wind. It is amusing to watch his efforts at such times.

The nest is made of twigs and sticks, in bushes or low trees; young pine trees are especially liked. There are four pale greenish-blue eggs speckled with brown.

Jays may stay with us all the year, in the orchards or dooryards, or calling from the woods. They eat wood-borers, scale insects, grasshoppers and the eggs of some caterpillars; these comprise about one-fifth of their food. The rest is chiefly acorns, chestnuts and beechnuts. They store nuts, as squirrels do. They also eat some corn. The poet Riley has some verses about the jay:

"Mr Bluejay, full o' sass,
In them baseball clothes o' his,
Sportin' round the orchard, jes
Like he owned the premises."

Everard Jack Appleton, in *The Quiet Courage*, has these verses, in Southern negro dialect:

Jay-bird ain't no singer,
But his clothes is gay!
Flies up in a tree an' yells
All de lifelong day.
Soun's des lak a dorg-fight
When he 'gins ter squawl,
Othuh buhds dey stan's aside—
Let's him do it all!

Odder buhds doan' lahk him,
Dey des leave him be;
Go erway an' let him think
He done bought dat tree!
Ain't he lahk some folkses—
Fin' 'em norf an' souf—
Might mak folks b'leeve in him,
Ef he'd shet he mouf!"

THE BOBOLINK. Robert of Lincoln is a great favorite. His black and white coat is striking, he is friendly, he guards his mate on the nest, feeds the young faithfully, and sings beautifully. He gets his name from his call, which sounds like "Bob-o-link! Bob-o-link! Bob-o-link! Spink, spank, spink!" He has a long song which begins with his name but is soon lost in a multitude of other notes. His song is so contagious that Lowell said it "runs down, a brook of laughter through the air."

He sits on the fence, teeters on the grass, flutters above the clover and flies in a topsy-turvy fashion, singing all the while, in an irrepressible way. Bobolink, you know, is related to the blackbirds, and his alarm note resembles theirs.

Bobolinks come north early in May. By the middle of August the male has lost his beautiful coat, has stopped singing, and he and his mate are preparing to leave for the winter home in Brazil. In the South they loiter among the rice fields of South Carolina, gorging themselves on this dainty until they become known as ricebirds or reed birds. In October we find them in Jamaica. By this time they are so fat the islanders call them butter birds. If you look on the map and locate the headquarters of the Paraguay River, you will find the winter home of the bobolinks. In April they are again in Florida on their way north. Here they are called May birds.

Originally bobolinks were found only in the eastern part of the United States, but, like many other birds, they have followed emigration, until now they are found as far west at Utah and Nevada.

Bobolinks nest on the ground. The female selects a spot well away from the edge of a field—a spot which looks like many other spots, so that no one can locate the nest. Then she sits down and turns about until she has worked out a small hollow. This she lines with dead leaves and grass. Sometimes she pulls the growing leaves and grasses together over her, to form a sort of arch. Bobolinks especially like clover fields. Because there is no way of marking the location of the nest, many young bobolinks are killed, but in spite of the numbers which are killed in such ways and in the rice fields of the South they do not seem to be decreasing in numbers. The white eggs, heavily spotted with brown, will probably all hatch out, and there will be four to six young birds.

Do you remember the verses in which the bobolink sings, "Nobody knows but my mate and I where our nest and our nestlings lie?" They know that the nest is well hidden. All the time the mother is brooding, the gay, happy father bird is sitting somewhere within sound, singing to her as cheerily as he knows how. In case of heavy rains before the young are old enough to fly, the young birds may be drowned.

The United States government estimates that bobolinks eat ten per cent of the rice crop each year, but in the North he eats only insects and weed seeds.

The full-grown birds are seven and a quarter inches long.

THE RED-HEADED WOODPECKER. Redhead and his brothers, the flicker (or as it is sometimes called, yellow-hammer, high hole, or yarup) and the yellow-bellied sapsucker, are all fine guardsmen for our trees. They use their bills so effectively and so steadily to drill holes in trees in search of grubs that sometimes they sound like a whole battery of triphammers. The bill is also used to excavate a place for a nest.

While the woodpecker is working it uses its stiff, pointed tail feathers as a prop. The claws have two toes pointing forward and two pointing backward, to help support the bird when it is climbing. The tongue may be twice as long as the head, and it has sharp barbs on the end. The bill is long and strong, and has a chisel point to cut with. You see how well these birds are equipped for the work they do.

Nearly half of the woodpeckers' food is boring insects, which if they were not checked would kill the trees. These birds also eat ants, seeds and nut meats. The redhead is not as hard a worker in search of food as some of the other birds; sometimes it simply sits and watches for flying beetles to get in the way of its long tongue.

Redhead is noisy and quarrelsome, and eats the eggs and the young of other birds, but because it does so much to help us it is seldom killed. In some sections where these birds drum on buildings they keep the people from sleeping and may even deface the structure.

In such case someone is apt to go looking for them with a gun. That is unfortunate, because we have few birds which are as good protectors for our orchard and shade trees.

Woodpeckers build new nests each year, leaving the old ones for other birds. Holes in fence posts or in trees in the orchards or woods are all used. The eggs are four to six, and are glossy white.

Adult birds are nine and three-quarter inches long—almost the size of the robin. The entire head and upper breast of adults is red. The young birds have a gray head and back streaked with darker coloring.

CARDINAL BIRD. This beautiful bird received its name from its brilliant color, which characteristic also gives it the name of *redbird* in some localities. Another and more exact name is *cardinal grosbeak*; the latter word means *large beak*, and this is particularly appropriate because its beak is large and thick, Quite contrary to what you might expect, the beak is also red, and this is very unusual among birds.

In addition to the peculiar appearance of the cardinal, described above, this bird can be readily distinguished by a crest of feathers sticking nearly upright on the top of the head. There is a circle of black surrounding the beak.

The cardinal uses his strong beak to crush the solidest of seeds, or the hardest and driest grains. In the autumn, if the farmer overlooks an ear of corn on the stalk at harvest time the cardinals are likely to find it; they will husk the ear and easily crack the hardest kernels. Besides corn, their food consists of wheat, rye, oats, a few berries, weed seeds, grasshoppers, flies and beetles. If these birds were as numerous as are some species of our feathered friends, they might be a nuisance because they would destroy growing crops; but their number is comparatively small and the damage they do is of little consequence. They repay the farmer and gardener many times over by destroying worms and insects which are injurious to crops.

You do not see the cardinal around your house in the summer time; he prefers some secreted place and does not like human company to an extent which is true of some other birds. He shows a fondness for living in thickets and shrubbery close to river bottoms and near grain fields. He will only visit your house when he is hungry, and this is very seldom in the summer time. In the winter, if he is in your vicinity, he may be expected to come to see you, and on these occasions if he could talk he would ask you for grain and other cardinal delicacies. He will be a fairly regular visitor during the cold weather if you will treat him right.

The nest of the cardinal is usually built in a thicket or in a low tree, and it is made rather loosely of the same materials that many other birds use for their nests, that is, grains, wheat stems, twigs, etc. The mother bird lays from two to five dull white or grayish eggs, flecked with brown. When the little birds break from the eggs they are homely brown little things, and this is a wise precaution of nature, for if the helpless birdlets were to have at once the beautiful brilliant color of the father, they would all be devoured by bird enemies, and the species of cardinals would be extinct.

This bird is a sweet singer and sometimes is confined as a cage bird, but in most states it is now contrary to law to cage the cardinal, because it does not live long in captivity.

The Story of Flowers

E. D. FOSTER

THERE is magic in the very word "Flowers!" At its sound we see at once damp spring woods, with early violets in shady hollows and jack-in-the-pulpits preaching to waving grasses; buttercups in sunny patches, pale yellow primroses in the hedges and near the ditches; gorgeous tulips, delicate daffodils and the proud narcissus in the garden; dandelions on the lawns. Or we may think of florists' shops with purple-red American Beauty roses, their stems as tall as we are, their price a dollar a blossom! Or of pure-white Easter lilies, pansies with enameled faces, moss roses sheltered from the wind, tiger lilies dazzling the eyes, magnolias sending out overpowering perfume from their white velvet blossoms, and fringed carnations spicing the garden paths. Then we shall think of autumn, gold, brown and red, the fields and roadsides yellow with golden-rod, purple with asters and red with fiery leaves and berries. Spring, summer, autumn, each is jeweled with its gem-like flowers, even winter bearing on its white bosom the green and red holly, and the yellow-green mistletoe. Flowers! They speak a language which even a babe may understand.

There is added magic in each flower name if we know what the poets and story writers, what the old legends and fairy tales, tell us about each flower. We shall explore among the flowers to-day and learn something of their story.

THE ROSE. From the beginning the rose has been the "queen of flowers," the best beloved of all. Our heathen Northern ancestors, the very ancient Scandinavians, made it the flower of Frigga, or Freya, who was their loveliest goddess, beautiful and sweet, the goddess of love and spring. The old Greeks and Romans, too, made it the flower of the goddess of love and beauty, whom they called Venus. They tell in a myth which has come down to us how the rose was once white only; but Venus loved Adonis, a beautiful youth who was slain by a wild boar; as she ran to help him, she pricked her foot on a thorn, dyeing the rose red, a color it has had since. Of course such a story would not do for our Christian forefathers, so they tell another tale—how the red roses sprang from some burning brands that were put out just in time to save a beautiful Christian girl from death by fire. They also tell how the rose of Jericho sprang up everywhere that Mary and Joseph rested on their flight into Egypt with the infant Jesus. So after that the rose was dedicated to the Virgin Mary, and prayers to her were said on the *rosary*, which may mean that every prayer was a rose, or that for beads the smooth, hard seed pods were used.

Perhaps the most beautiful story of the rose is told by the Persians, who

have a sacred book called the "Garden of Roses" and a festival called the "Feast of the Roses." They say that the nightingale is the lover of the rose; that when he sings his plaintive melody the rose opens; that he hovers over her till he faints with her sweetness; and that he sings his saddest song when the roses are gathered.

Our lovely flower figures much in history, too. There was once in England a "War of the Roses," when the soldiers under one leader wore red roses on their helmets and those under the other wore white. And a legend tells us that because the war was ended by the Prince of the Red Rose marrying the Princess of the White Rose, the bushes that year bore roses of both colors, and roses of mingled red and white!

Furthermore, roses and other flowers used to be part of the rent paid for land; and in France up to the sixteenth century, a nobleman, each year before the meeting of the assembly, had to strew the palace halls with rose leaves and give rose garlands to each member. Crowns of them were prizes and rewards, garlands of them decorated shrines, festivals and feasts.

THE LILY. This beautiful flower runs a close second to the rose in favor. Its tall stateliness has given it the title of "king of flowers;" as the rose stands for love, so the lily stands for purity and peace. It, too, is devoted in the Roman Catholic Church to the worship of the Virgin Mary, and is shown again and again in religious pictures. One very ancient story tells how the lilies got their milky whiteness from the Milky Way in the sky! Another tells how the water lily (which doesn't really belong to the same family) was found one morning after a fairy had used it in crossing a pond and then had passed on, and left it there. It certainly is a dainty footpad for a fairy. The lily-of-the-valley is one of the sweetest, most exquisite members of the Lily Family, and was once thought to be of great value as a medicine, when distilled under the new moon and charmed in other ways. The tiger lily, shown in the chart, is a gorgeous relative which was brought from Turkey in Asia, and is therefore sometimes called "Turk's cap." It is a red-orange color with black spots.

But perhaps the most interesting lore about the lily is its use on the French coat of arms. We have all heard about the "Lily of France," as we have about the "Rose of England." When France had kings they used the lily on their banners. No one is quite sure whether it is the real white lily or the blue iris (*fleur-de-lis*), not a lily at all, which is the "Lily of France"; but what does it matter, as long as the "Lily of France" always means to a Frenchman what the American Eagle means to us?

FLOWER FAMILIES. We have spoken of the Lily Family, as if flowers were grouped like human beings. They *are* grouped in exactly that way, if we

include in our family our cousins to the last degree. Perhaps we ought to say the Lily *clan* or *tribe*; but the botanist doesn't say it that way. The members of the Lily Family all have certain traits that separate them from other families. That is true of the Rose Family, another large group. Suppose we see what familiar flowers belong in the Rose and Lily families; then we can see what common characteristics they have. To the Rose Family belong the apple, pear, plum, hawthorn, cherry, almond, strawberry, raspberry and blackberry plants, besides all the roses you can think of. To the Lily Family belong, besides the tiger lilies and white lilies, the tulip, hyacinth, yucca, onion and asparagus. Would you ever believe that the beautiful lily and the onion are related?

THE TULIP. While we ponder over what each family has in common, let us think of some interesting things about another member of the Lily Family. The tulip, for instance, has customs and history connected with it. This gay flower gets its name from a turban; a very good name, indeed, if we remember how Turks look with their heads wound up in yards and yards of red or blue or yellow cloth. When a Persian man (who always wears a turban) wishes to tell a damsel that his face is on fire with love for her and his heart is burnt to a coal with love he hands her a tulip (look inside of a tulip), and they are engaged! History says that a German brought the tulip bulb from Constantinople to Germany in 1559, and started all Europe, especially Holland, to growing tulips and making them larger and gayer than ever.

DAFFODIL AND NARCISSUS. We might almost believe that the narcissus and the daffodil belong to our Lily Family; but their family name is Amaryllis. They, too, are beloved of the poets, and they figure in song and story. A tiny daffodil is the flower honored on the Chinese New Year, which comes a month later than ours. It is to them, as to us, a symbol of new birth. Sometimes village people call it "lent lily," as it appears before Easter like a herald of resurrection. Some of the most beautiful poems in our language are dedicated to the daffodils. One poet tells us how he saw them—

"Beside the lake, beneath the trees,
Fluttering and dancing in the breeze—"

outdoing the waves that danced, too, in their glee. That poem is full of the joy of springtime flowers.

The word *narcissus* hasn't so pretty a meaning, as we shall see, when we hear the story the Greeks tell. Narcissus was once a very beautiful Greek boy whom the nymph Echo loved. But Narcissus scorned her coldly, and she faded away in the woods till she became only a voice. Meanwhile, he wandered about in the woods till he came to a brook. His mother had seen to it that he should never look into a mirror, for it had been prophesied that a mirror would be his

doom. Alas! the calm water of the brook was a beautiful mirror. Narcissus saw himself in it, but thought it to be someone else. He fell in love with his own image and hung over the water's edge, constantly pleading with his image to come to him. He was scorned as he had scorned Echo. There he took root, and there the narcissus stands to this day, bending over the brook to look at itself.

THE THREE P's. The poppy, the pansy, and the primrose have also a story halo about them. The poppy is an old, old flower, beloved of the Chinese, Egyptians and the Greeks, who knew, as we do, that the seeds of the poppy contain a delicate salad oil, and from the flowers come opium for smoking and for medicine. The flower meant to them sleep-giving, and they devoted it to the god of sleep. Since the red poppy springs up among the grain, the Greeks also thought that it belonged to Ceres, the goddess of the harvest. To us the poppy means California, with rows and rows of marvelously-tinted flowers with perfect petals like silk gauze. Or it may mean to the farmer, as the daisy and the wild rose often do, troublesome weeds in his grain fields. Did you ever look upon the daisy as a weed?

But our sweetest associations are very recent. Some of us have heard much about the poppies in the wonderful poem, "In Flanders Fields," and the American soldier boys who sleep beneath them:

IN FLANDERS FIELDS

In Flanders Fields the poppies blow
Between the crosses, row on row,
That mark our place; and in the sky
The larks, still bravely singing, fly,
Scarce heard amid the guns below.

We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders Fields.

Take up our quarrel with the foe;
To you from failing hands we throw
The torch; be yours to hold it high,
If ye break faith with us who die,
We shall not sleep, tho' poppies grow
In Flanders Fields.

—LIEUT. JOHN McCRAE.

The pansy is a relative of the violet and, like it, has been taken as a type for constancy and modesty. Its name means "thought," or "think of me," and so we give it to friends, or plant it on the graves of our loved ones. The beautiful

old name of "heart's ease" is even more comforting; the poets love to tell of it and how it grows more profusely in the gardens of the poor and lowly than in those of the rich and proud.

The last "p," the primrose, is the best beloved of English meadow flowers. It means the "first rose." It is very often called cowslip—and English girls make huge balls of it for their May-day festivals. Others call it the "key-flower," and many legends are told of how it opens doors. One legend relates how it opened the door of memory to a knight returning from the wars; how as he slept among the primroses he was a boy again in his childhood's home. Another tells how a bunch of primrose keys opens to a favored child the door of a castle, wherein lie gold and gems. The child takes of the treasures but returns the keys, that he may avoid a black dog, who will follow him forever, if he neglects that duty. The evening primrose shown on the chart is not of the big Primrose Family, but belongs to a family all its own. It is a lovely, fragrant thing that opens suddenly at sunset, gives out a delicious perfume, and closes again at sunrise.

CARNATION, HOLLY AND MISTLETOE. These are highly-favored and are all connected with religious beliefs. The carnation belongs to the Pink Family, and was in Greek mythology the favored flower of Jove. Perhaps for that reason it was used so much in coronations or crowns, which may account also for its name. The holly and the mistletoe were also connected with heathen rites once upon a time, though now we consider them connected decidedly with the birth of Christ and with Christianity. The Druids, old British priests, used the holly and mistletoe in their ceremonies; and our Christmas celebrations are celebrations derived in part from those of ancient times. However, our meaning is right, and that only matters. The holly means "holy," and our rather confused ancestors evidently thought it was a crown of holly that was put on Christ's head at his crucifixion. At any rate, the holly, which is green, with red berries at Christmas time, when the rest of the world is white, is now the symbol of love and good wishes. The mistletoe, a queer, pale-green plant hanging on the trees when they are bare of leaves, and getting a good deal of its food from the tree it hangs on, has a sad heathen story connected with it. Frigga, the wife of the god Odin in Norse mythology, had a beloved son, Baldur; when he was born she thought she had made everything in the world promise it wouldn't harm him. Alas! she forgot to warn the mistletoe. When the gods were amusing themselves throwing things at Baldur and seeing them fall harmless, Loki, the god of mischief, gave the blind god Holdur a sprig of mistletoe to throw. It killed Baldur; and his mother grieves for him six months of every year. When Freya grieves, we have autumn and winter. But let us rather think how the mistletoe is connected with friends and lovers at Christmas time.

BLUEBELL AND BUTTERCUP. These are humble field flowers, common to both Europe and the United States. Fairy lore makes both of them beloved of the fairies; the bluebells ring for their weddings and dances, the buttercups make bowls for their tables.

OTHER FIELD FLOWERS. The goldenrod, aster, black-eyed Susan and bitterroot are field flowers, too, of a later season and not so simple a type as the bluebell and buttercup. The first three belong to a family called Composites, because they are really not one flower, but a combination of numerous flowers. The centers are often of one kind of flower and the rays of another kind. Pick an aster or dandelion apart and note how it is formed. These composites and the bitterroot, which is of the same family, seem more distinctively to belong to our country, for we have the most varieties, and they are much commoner with us. The aster, to be sure, has a Japanese relative in the big, ragged and beautiful chrysanthemum, and it has been known in Europe and America for a long time. Its name has the pretty meaning of "star"—not so fitting for the purple New England aster, of course, as for the European white one. But purple fields of it east and west are true of America only. Also the rose-pink bitterroot carpets a fruitful valley in Montana, and has given it the name of Bitterroot Valley. Roadside stretches of yellow goldenrod are seldom seen outside of America. In fact, there is but little goldenrod to be found except in this country, where we have at least twenty-seven varieties.

BLACK-EYED SUSAN. This attractive flower decorates our summer fields, too, in huge patches. Rather coarse flowers they are, but their sturdy, honest faces and their brown and gold color make as strong an appeal to us as many of the daintier garden flowers. The black-eyed Susan is a relative of the sunflower, about which there is a pretty story.

THE STORY OF THE SUNFLOWER. The nymph Clytie fell in love with the beautiful sun-god, Apollo. Each morning she watched for his rising, each evening she gazed at his setting. Her love was a silent, secret love, and Apollo knew nothing of it—would not have heeded her, perhaps, if he had. So devoted did she become that her face was always toward the sun, following his chariot of fire across the heavens. Gradually she took root and became a flower, which to this day turns its face in adoration towards the sun, throughout the livelong day. Whether the Greeks meant Clytie to represent our sunflower or one they call heliotrope doesn't matter; the story suits our sunflower, which keeps its face towards the sun. The poet Moore thus refers to this fact:

* * * the sunflower turns on her god when he sets.
The same look which she turned when he rose.

THE RHODODENDRON AND THE MAGNOLIA. We have two other ornamental, American flowers, among many which could be named—the rhododendron and the magnolia, both with European connections. The former grows on a decorative garden bush, and is a close relative of the azalea. The magnolia grows on a dusky Southern tree, from which its white velvet blossoms, sometimes almost a foot across, gleam out like pale, fragrant moons. There is a tale that the velvet petals will turn black, if touched, so delicate is the flower.

PARTS OF A FLOWER. If you think we have nothing but song and story that is interesting about flowers, you are quite mistaken. Each little flower in itself is a miracle. While flowers all have common traits, still there is as much variety in the flower kingdom as there is a never-ending study of marvels.

Suppose we take a simple flower like the buttercup for our first investigation. We notice the small green leaves of the outer circle; that is the *calyx* (husk), each leaf being a *sepal* (covering). The beautiful yellow petals make the *corolla* (a little crown). Now in the center we notice tiny slender stalks carrying small bags at their tops; those are *stamens* (the word stamen means *to stand*), the bags being *anthers* and containing the yellow dust called *pollen*. In the very center, covering the stalk “knob” from which the flower parts radiate, are the *pistils*, tiny flask-shaped objects with a sticky top. Many flowers contain only one such pistil, and many have fewer stamens. The corolla is often quite differently shaped; it may be bell-shaped, as in the bluebell; or formed into a keel with two wings, or standards, like the Pea Family flowers; or lipped, like a snapdragon; or tubular, like a honeysuckle.

HOW SEEDS ARE SCATTERED. There are numberless shapes of flowers, as there are numberless colorings. But whatever the shape and color, flowers all do the same work and have about the same problems. They are the seed-makers of the plants; and a very big job it is. The pistil is really the seed pod, as you will see if you cut one through, and the whole flower is concerned with getting the seeds in that pistil ripened and scattered. Two problems must be solved; first, how to get pollen from its own stamens or from stamens of other flowers on to the sticky part of its pistil, for unless that is done no seeds grow; second, how to get the seeds scattered as widely as possible, since they will not grow if they fall too near the mother plant.

Why do you suppose the bees hover so constantly around flowers? Because they find there a delicious honey-drink called nectar, and also the bee-bread, pollen. That is true of moths, butterflies, and ants, too. Why do you suppose the flower manufactures such food? Because it needs insects, bees, butterflies and moths to carry the pollen from one flower to the pistil of another. That is one way of solving the first problem. Watch a bee in a sweet pea; see how he

comes out dusted with yellow pollen, which he rubs off on the pistil of the next flower. Oftentimes a flower can use only one particular insect; then it shapes its flowers and deposits its nectar where just that one kind of insect can get it. It is a wonderfully fascinating subject, which you can read more about in your botany. This you must remember: the shape, the color, the fragrance of the flower, all have meanings, all are meant to help the flower in its big work of making and scattering its seeds.

The wind, too, is used to sweep the pollen from some flowers to the pistils of others. That is a very wasteful process, but tree flowers and grass flowers often use that method. The wind is of more importance, however, in scattering the seeds. Have you ever noticed the winged seeds of the maple, or the feathery umbrella on the dandelion seed? They show how the flowers fit their seeds to sail afar off on the wind. Nuts and fruits are seeds, too, adapted for scattering by animals or man. The squirrel carries off nuts, hides them in the ground and forgets some, which thereupon grow. Man eats the sweet fruit, but throws away the pit, which is the seed the flower wants scattered. Now you can guess why the Spanish needle and the burs stick to you or to woolly animals in the autumn. Perhaps, too, you will remember how some seed pods, like the poppy, crack open near the top, and the wind uses them like pepper boxes, strewing their black dust all around. Some seed pods, like those of the snapdragon, explode with a report like that of a popgun, scattering their own seeds by that force. And sometimes, as in the case of the tumble weed, the whole plant is pulled up by the wind, and it rolls off across the country, scattering its seeds.

There is much more that is fascinating about flowers; how some catch insects and digest their juices; how they mimic poisonous flowers or insects for protection; how they manufacture food for themselves and their insect colonies; how water-flowers manage their problems, and so on. If you watch in your garden you can learn a great deal; if you read about flowers in books and magazines you can learn still more. And the more you learn, the more you will believe in the miracle and beauty of flowers.

The Story of Kites

E. D. FOSTER

KITE flying in the springtime! This is one of the jolliest and most interesting sports we can enjoy out of doors. It is real fun to feel the tug of the kite far up in the air, to know that we can haul it in, or give it more string and let it fly higher, and to watch it swaying under the blue sky like a captive bird.

Boys and girls in many different parts of the world have been flying kites for hundreds of years. To-day, brown-skinned boys on the other side of the world are having the same good times as their white brothers, making and flying kites. In fact, kite-flying is more common in Japan, China and other countries of Asia than in our own. One good reason for this is that the bamboo plant, which grows in these countries, provides a light, strong wood that is easily bent but not easily broken, and is the best wood in the world for the frame of a soaring kite.

There are several stories to explain the invention of the kite; it is hard to tell who thought of it first, when we remember that even savage tribes were flying kites centuries ago. The people of Korea have one of the most interesting stories about it. They say that the first kite was made and sent up into the air by one of their generals, who wished to encourage his soldiers just before a battle. This general fastened a lantern to the kite, and when the soldiers saw the bright light in the sky they thought a new star had been placed in the heavens as a sign of divine help for their cause. This is a pretty story; suppose we make believe that it is true, anyway.

In China they have special kite days, when men and boys by the thousands make for the hillsides to enjoy themselves. Some of their kites are so big that they will lift men off their feet into the air. Humming kites, having round holes provided with vibrating cords, are very popular. In some parts of Eastern Asia kite-fighting is a common outdoor sport. The strings are rubbed with a mixture of glue and crushed glass to make them stiff. The owner of one kite will try to get it on the windward side of another, then let it drift against the second kite and with a sudden jerk cut the string in two. It takes a good deal of skill to cut down a kite or to keep one's own kite safe.

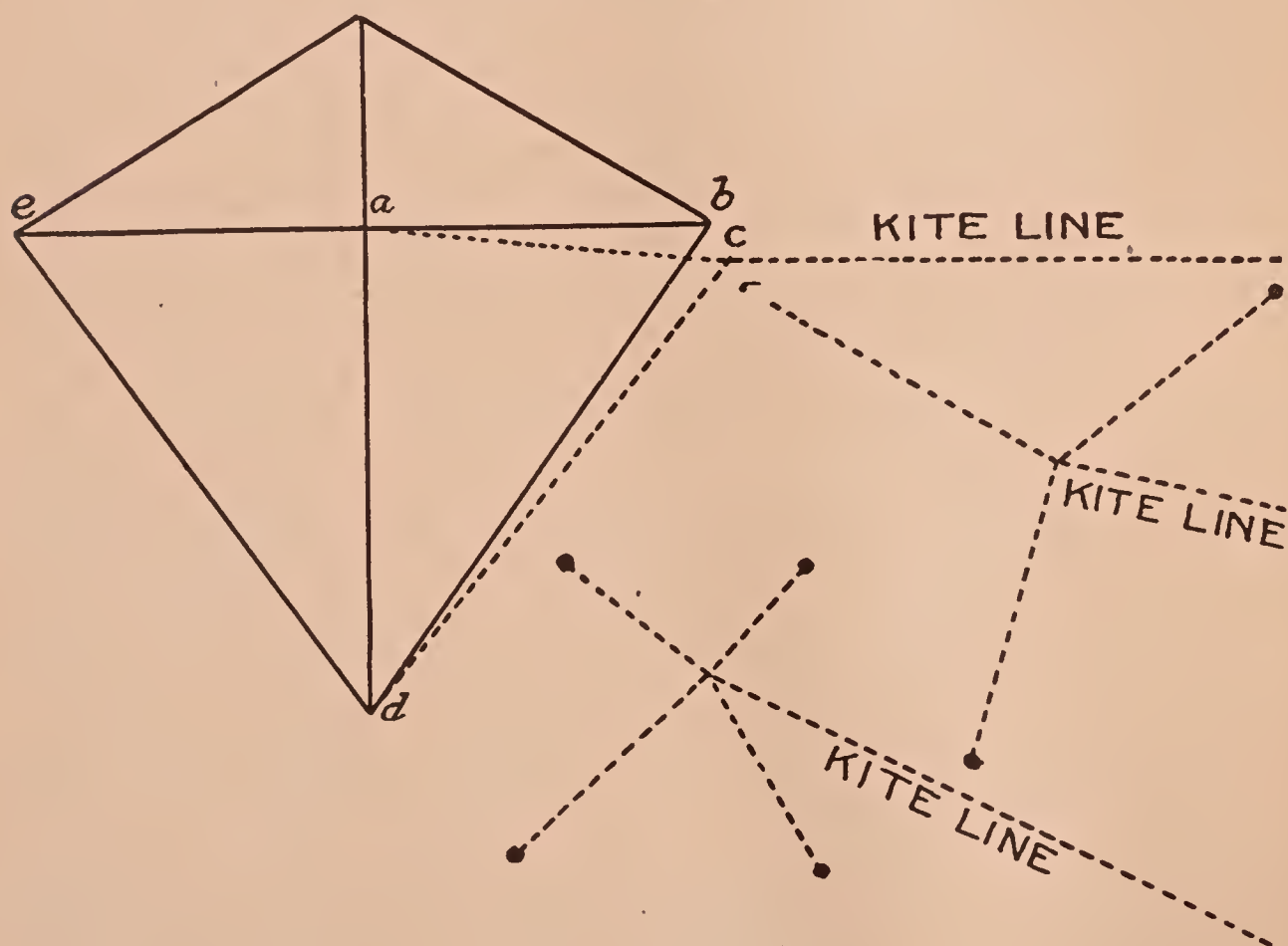
Useful Kites. We must not forget, however, that kites are more than play-things. Our Weather Bureau Service uses kites to learn about conditions in the air, such as temperature and amount of moisture. Small instruments that record these facts are fastened to wires, which are lifted far up into the air by teams of kites flying tandem. Kites have also been used to take photographs from the air,

to show signals on the battlefield, and in wireless telegraphy. We might have heard more about them in the great World War, if it had not been for the wonderful record of the aeroplanes.

Benjamin Franklin was the first man in our own country to use a kite to aid science. In the year 1752 he sent up a kite during a thunderstorm, and by means of a wire running down from the kite along the string, he proved that lightning is electricity. Scientists tell us that Franklin might easily have been killed by lightning when he tried this experiment. To-day, men who work with kites know how to protect themselves.

KITE MAKING

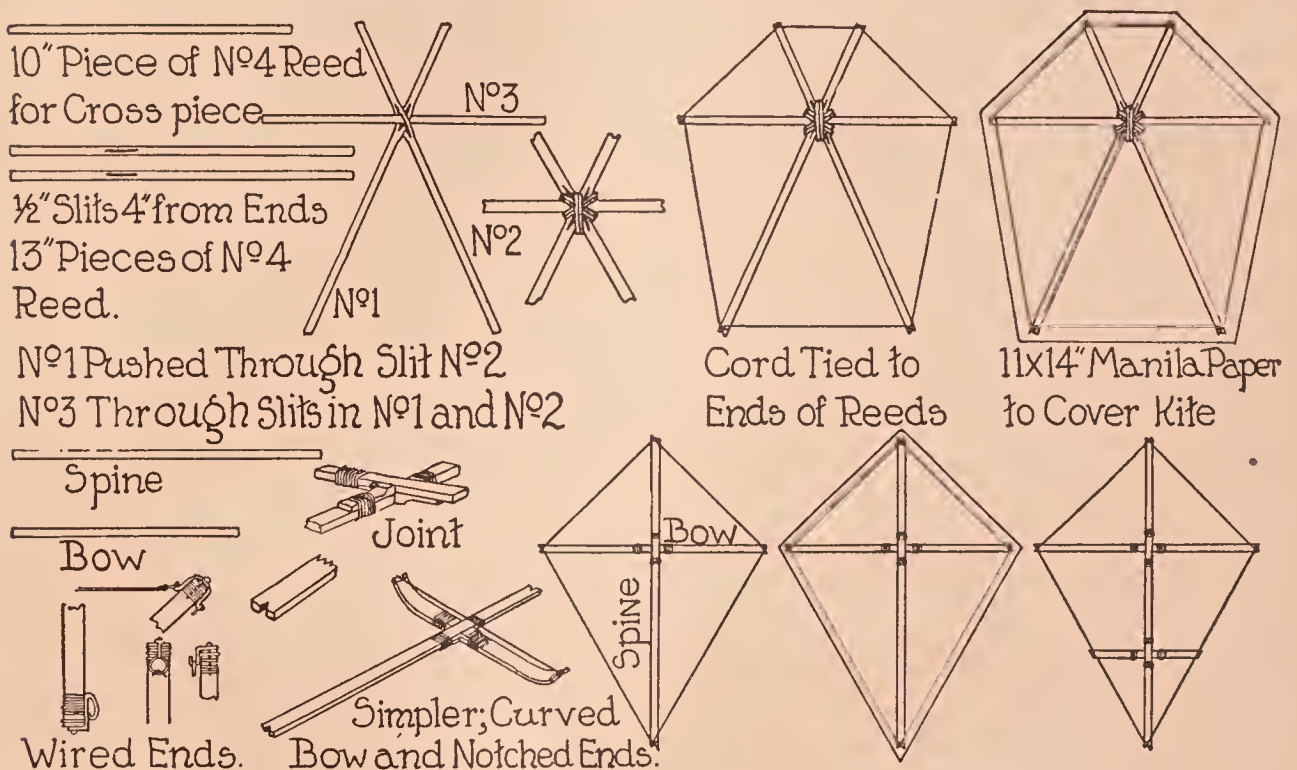
The Common Kite. The simplest form of kite and the one seen most often is the plain surface kite whose framework consists of two sticks of different lengths,



placed one upon the other so that they form a cross. When the sticks are fastened together with a cord, as here shown, they are said to be *lashed*. We must be care-

ful to have the two opposite sides of the framework equal, because otherwise our kite will jerk to one side, or perhaps come down suddenly to the ground, or maybe not go up at all. To find the center of each stick by measuring with a piece of string is an easy matter. The two ends of each stick should also be the same in weight, and if after balancing the sticks over a knife blade you find that the ends vary, carefully whittle down the parts that are too thick. You will find that soft, tough woods, like spruce and basswood, are best to work with.

Stringing and Covering. These are very important steps in kite-making. The string goes all around the ends of the framework, providing a support for the



covering. Use strong cord that will not break easily. Cut notches in the ends of the sticks, and then stretch the cord through these slits, fastening it at the top of the spine. To cover the frame, paste light-weight paper over it, turning the edges neatly down over the cord. Stout tissue paper in bright colors makes a very pretty kite, but plain wrapping paper or even newspaper will do very nicely if nothing else is at hand.

Making the Bridle. Most kites need a *bridle* to fly at the right slant and with proper poise. Bridles are rather loose strings fastened to the framework. Where the strings cross the kite line is attached. Different kinds of bridles are here shown. The diagram with the letters *a. b. c. d. e* shows a bridle fastened at the bottom of the spine (*d*) and the place where the bow and spine cross (*a*). The kite line is

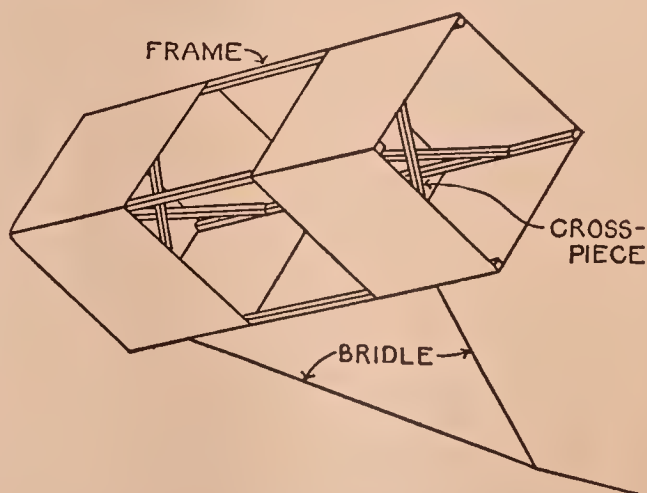
attached at the point c , and the length from a to b is the same as the distance from a to c . Also, bd and cd are equal. If we should pull the bridle over to the left, c would just touch e . The upper of the other two diagrams shows a three-string bridle, and the lower one shows a four-string bridle.

Lines and Tails. The line of our play kite needs to be only good cotton string, the harder twisted the better. For stronger pulling kites some people like twisted linen twine, shoemaker's thread or cord. It must be light and strong; scientists have found that for their working kites piano wire is best.

The weight of its tail will keep the kite in position and at the right angle to the wind. We also like to see a tail trailing gracefully behind. It should be from ten to fifteen times the length of the kite, and should be made of a cord, on which strips of paper or cloth are tied at intervals. A heavier bunch hangs at the end. For extra beauty we might use colored paper balls or some made of three intersecting cardboard discs, or we might use light ropes with tassels, our Christmas stock of paper, rope and tinsel coming in handy.

Tailless Kites. But if we are up to date, we must know how to make tailless kites. These are always regular in form, with the bow bent backward, and the covering baggy. The tailless "Eddy" has a spine and bow, in form of a cross just like the first kite described; but the bow is bent backward by means of a brace stick (about three inches long in a three-foot kite) inserted between the middle of the bow, and a string stretched between the ends. When the covering is put on, we cut it $1\frac{1}{2}$ inches larger around than the frame, and fold in only $\frac{1}{2}$ inch. That will make the necessary bagginess.

Box Kite. Another very modern tailless kite is the box kite, which is a little harder to make. It looks like two square boxes with no bottoms or tops, set one on top the other, with sticks to keep them the right distance apart. We need four sticks of equal length, four shorter sticks for braces, two stout cloth strips and glue. We glue or stitch half-inch hems on each band and join the ends to make two separate cloth "belts." We glue the bands to the sticks, as shown, making the box shapes. Then we notch the cross-pieces to fit into the frame sticks inside the boxes, glue and lash them tight. The cross-pieces must be long enough to brace the sides firmly. The bridle and line are then attached.





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